DISSERTATION ON

"A STUDY TO ASSESS THE EFFECTIVENESS OF EARLY SUCKLING IN INCREASING THE MATERNAL NEW BORN BONDING, AND PSYCHOLOGICAL OUTCOME OF THE PRIMI MOTHERS DELIVERED AT INSTITUTE OF OBSTETRICS AND GYNAECOLOGY, EGMORE, CHENNAI.

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CERTIFICATE

This is to certify that this dissertation titled **"A study to assess the effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai.** is a bonafide work done by Ms.P.Shanthi Grace, M.Sc (N) II year student, College of Nursing, Madras Medical College, Chennai - 600003 submitted to THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY, CHENNAI in partial fulfilment of the requirements for the award of degree of Master of Science in Nursing, Branch - III, Obstetrics and Gynaecological Nursing, under our guidance and supervision during the academic year 2015 – 2017.

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ABSTRACT

Title:

"A study to assess the effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai.

Need for the study:

A number of studies have shown that early contact often combined with early sucking has beneficial effects on maternal and neonatal outcomes. Initiation of breast feeding is the most crucial part of lactational success and bonding, researchers believes that sucking doing third stage will improve the above mentioned benefits. And also sucking enhances to secrete oxytocin.

Objectives:

- To assess the maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To assess the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To find out the association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

Key Words:

Early Suckling, Maternal New Born Bonding, Psychological Well-Being.

Methodology:

Research approach	-	Quantitative research approach
Duration of the Study	-	Four Weeks (20.11.2016 to 18.12.2016)
Study Setting	-	Labour Ward at IOG
Study design	-	Cross sectional research design
Study Population	-	Primigravida mothers who delivered in labor ward at IOG.
Sample Size	-	60 women
Sampling technique	-	Convenient Sampling Technique

Data Collection Procedure

The 60 primigravida mothers were assigned for the study. The investigator first introduced herself and obtained consent for the study from the mothers. After proper explanation, the data related to demographic variables and obstetrical variables were collected from the interview method. After delivery of the baby within 10-15 minutes early suckling were initiated. The maternal and new born bonding was assessed by post-partum bonding questionnaire and psychological outcome was assessed by Edinburg post natal depression scale.

Data analysis:

Demographic variables in categorical/dichotomous were given in frequencies with their percentages. Obstetrical variables in categorical/dichotomous were given in frequencies with their percentages.EPDS score and PBQ score was given in mean and standard deviation. Correlation between EPDS score and PBQ score was analysed using Karl pearson correlation coefficient method. Association between PBQ score with demographic variables are analysed using Oneway ANOVA F-test and independent t-test. Association between EPDS score with demographic variables are analysed using Oneway ANOVA F-test and independent t-test<0.05 was considered statistically significant.

Results:

The findings of the study revealed that early suckling improved the maternal new-born bonding and psychological bonding with paired t –test P value is 0.001. There is statistical significance association between the selected demographic variables and after early suckling.

Discussion:

Association between maternal new born bonding score and Primi para mothers demographic variables. Elder, more educated and joint family mothers are having more than others. Statistical significance was calculated using Oneway ANOVA F-test and independent t-test.It could be inferred from that there was significant

association between the selected demographic variables and after early suckling. Hence the research hypothesis was accepted.

Recommendation:

- The same study could be conducted on a large sample to generalize the results.
- The study could be replicated in different settings with similar facilities.
- The comparative study could be conducted in urban and rural adolescent girls.
- Same study will be conducted in any age groups

Conclusion:

The analysis of the result showed that the level of maternal new-born bonding and psychological outcome was increased after giving early suckling. The difference was found statistically significant at $p<0.001$ level.

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ABBREVATIONS

PPD	-	Post-Partum depression
PBQ	-	Past partum bonding questionnaire
IOG	-	Institute of Obstetrics & Gynaecology
MNB	-	New-born Bonding Maternal
EPDS	-	Edinburg post natal depression
SSC	-	Skin to skin contact
WHO	-	World Health organization
AAP	-	American academy of paediatrics

CHAPTER – I

INTRODUCTION

"It is the eternal changefulness of life that makes life so beautiful"

- Sigmund Freud

Parturition is derived from the Latin word "parturire" which means the act of bringing forth or being delivered. Parturition or labour is a physiological process during which the products of conception that is the foetus, membranes, umbilical cord and placenta, are expelled outside of the uterus.[1]

Labour is divided into four stages. The first stage starts from the onset of true labour pains and ends with full dilatation of the cervix. The second stage starts from the full dilatation of cervix and ends with expulsion of the foetus from the birth canal. The third stage begins after the expulsion of foetus and ends with expulsion of the placenta and membranes. The fourth stage is the stage of early recovery; it begins after the expulsion of placenta and membranes lasts for one hour.[2]

Active management of labour has been defined in many ways and current definition comprises of three components, administration of uterotonic soon after delivery of the baby, controlled cord traction and uterine massage after delivery of placenta. In previous active management of the third stage of labour the cord was clamped as soon as possible usually within one minute. However trails of cord clamping timing have shown beneficial effects on new born haematological indices leading to the recommendation to clamp the cord at around 3 minutes.[3]

Care of the baby in the third stage of labour includes clearing of airway, APGAR rating, birth kangaroo care that is initiation of skin to skin contact of the mother and the baby immediately after birth that helps in early initiation of breastfeeding, early separation of placenta, and mother and infant bonding.

Early skin-to-skin contact (SSC) begins ideally at birth and involves placing the naked baby, head covered with a dry cap and a warm blanket across the back, prone on the mother's bare chest. According to mammalian neuroscience, the intimate

contact inherent in this place (habitat) evokes neurobehaviors ensuring fulfilment of basic biological needs. This time may represent a psychophysiological 'sensitive period' for programming future physiology and behaviour. [4]

The rates of World Health Organization (WHO) [5], the European Commission for Public Health (ECPH) [6], and the American Academy of Paediatrics (AAP) [7] recommend exclusive breastfeeding for the first six months of life. Despite the established benefits of breastfeeding, rates are still low, and even though breastfeeding initiation are high, there is a marked decline in breastfeeding during the first few weeks after initiation, and exclusive breastfeeding is rare.[8]

Exclusive breastfeeding appears to be significantly lower among depressed mothers. Mothers who do not initiate or maintain breastfeeding are more at-risk for depression during the postpartum period. [11 – 18]

Bonding describes the process by which individuals become emotionally attached to one another. Bonding between mother and child is mainly achieved by early skin-to-skin contact (SSC) starting ideally straight after birth, thus representing the normal behaviour from an evolutionary perspective. [4]

Skin to skin contact in the third stage also benefits the mother, massage of the breast by the baby induces a large oxytocin surge from the mother's pituitary gland into her bloodstream. Close emotional interaction coupled with cutaneous, visual and auditory stimuli from the baby when placed in prone position in skin to skin contact also help oxytocin release. [19]

Mothers and babies should be together, in skin to skin contact immediately after birth. The baby is happier, the baby's temperature is more stable, the baby's heart and breathing rates are more stable and more normal, and the baby's blood sugar is more elevated. [20]

Nature has so designed that when a baby is born, a readymade food in the form of breast milk flows like divine nature. Initiating breast feeding at third stage of labour facilitates numerous benefits for the mother and new-born. Midwives play a vital role in the initiation of breast feeding within 3 min after birth.

Scientific evidences shows that soon after child birth, there is precipitations drop in the mother's oestrogen & progesterone levels, which triggers the release of prolactin from the anterior pituitary gland. Prolactin prepares the breast to secrete milk and subsequently milk is produced in response to in fact sucking and thus emptying the breast. As the nipple is stimulated by infant's sucking, the posterior pituitary is stimulated by the hypothalamus to produce oxytocin, which stimulates uterine contractions in labouring mother. The effect issue to oxytocin which is secreted during preparations for breast feeding and early sucking within 3 min suring third stage of labour.

1.1 Significants and need for the study

Breast milk is thought to be the best form of nutrition for neonates and infants. The properties of human milk facilitate the transition of life from in utero to ex utero. The midwives must be familiar with how the mammary gland produces human milk and how its properties nourish and protect the infant. [21]

A number of studies have shown that early contact often combined with early sucking has beneficial effects on maternal and neonatal outcomes. Initiation of breast feeding is the most crucial part of lactational success and bonding, researchers believes that sucking doing third stage will improve the above mentioned benefits. And also sucking enhances to secrete oxytocin.

Oxytocin acts on the breast to produce milk ejection or milk let-down. "Oxytocin also causes uterine contractions. New studies are adding to a body of literature that shows oxytocin plays a key role in maternal bonding and social affiliation what Taylor has labled.

Mr.Babai (2010) stated that Breast feeding during third stage enhances skin to skin contact between mother and new-born. New-borns are alert and crawl, reaching the mother's breast & they being to touch, massage the breast and also attach to the mother's nipple, this process leads to an enhanced uterine contraction that helps in placental delivery thus reducing maternal bleeding. This also stimulates the flow of milk from the breast and the mother experience incredible joy with this first meeting of their child increases the process of bonding between mother and new-born.

The national health surveys provided by the Portuguese Health Ministry showed that breastfeeding initiation rates increased from 81.4% in 1995/1996 to 84.9% in 1998/1999. 9 In 2010/2011, this percentage ascended to 98.5%. However, despite the increase in breastfeeding rates, these surveys also show a decrease in breastfeeding over the months. In 2010/2011, in baby-friendly hospitals, between, 65.2% to 72.5% of mothers exclusively breastfeed their babies by the time of hospital discharge. [10]

The investigator from her personal experience felt that the health care provided need to adopt early sucking of breast feeding following delivery as it offers numerous benefits for both mother and neonate. A good experience with 'early sucking' can ensure an intense interaction and benefits for both the mother and the new-born. During the clinical posting the investigator found that many of the primi para mothers are not aware of early suckling and psychological bonding. The researchers felt that in order to increase maternal and newborn bonding this topic has been selected.

1.2 Statement of the Problem

"A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai.

1.3 Objectives

- To assess the maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To assess the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To find out the association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

1.4 Operational Definitions

Effectiveness: refers to the increase in level of psychological bonding of mothers after early suckling.

Vaginal Delivery: is a natural process by which the uterus expels or attempts to expel the foetus and placenta.

Early Suckling: refers to placing the new born baby whose APGAR is above 7 immediately on the breast of the mother and initiating suckling after the cord is cut.

Maternal New Born Bonding: refers to the subjective well-being mood status, interaction pattern and maternal-infant relationship.

Psychological Outcome: refers to the subjective well-being mood status, interaction pattern and maternal-infant relationship.

1.5 Assumptions

- Early suckling ensures that the baby receives first colostrum's which is considered the first immunization.
- Breast feeding is fosters bonding between mother and child.
- Initiation of breast feeding within the first hour prevents neonatal deaths.

1.6 Hypothesis

H_1 - There is a significant difference in the level of maternal new-born bonding of primi para mothers delivered by normal vaginal delivery.

H_2 - There is a significant difference in the level of psychological outcome of primi para mothers delivered by normal vaginal delivery.

H_3 - There is a significant association between maternal new-born bonding and psychological outcome with their selected demographic variables and clinical variables of primi para mothers delivered by normal vaginal delivery.

1.7 Delimitations

- The study is delimited to the institute of Obstetrics and Gynaecology, Egmore, Chennai – 8.
- The sample size is limited to 60 patients.
- The study was limited to 4 weeks.

CHAPTER – II

REVIEW OF LITERATURE

This chapter divided into two parts

2.1. Literature Review Related To Study

2.2. Conceptual frame work

2.1. Literature review related to study

This section is divided into three parts

2.1.1. Maternal new born bonding

2.1.2. Benefits and effects of early sucking

2.1.3. Psychological outcome

2.1.1. Maternal new born bonding

Rasha Mohamed Essa et al., (2015) conducted a non-randomized controlled clinical trial done at a labor and delivery unit of National Medical Institution in Damanhour, Albehera Governorate, Egypt. A purposive sample of 100 laboring women was recruited. Study group (50) who considered skin–to-skin contact (SSC) and a control group (50) who received routine hospital care. The aim of this study was to determine the effect of early maternal /newborn skin-to-skin contact after birth on the duration of third stage of labor and initiation of breastfeeding. The results revealed that success in first breastfeeding was higher among study group compared to control group. There are statistically significant differences between the study and control groups in third stage of labor duration, complete placental separation, and immediate contraction of the uterus, position of uterus, absence of any abnormal signs such as uterine atony or excessive blood loss. The mean duration of the third stage of labor in the study group was significantly shorter (2.8 ± 0.857 minutes) than among those in the control group (11.22 ± 3.334 minutes) ($p < .01$). The study concluded that mothers who practice early maternal/newborn SSC immediately after birth experience shorter duration of the third stage of labor and early successful initiation of breastfeeding. [26]

Himani, Baljit Kaur and Praveen Kumar (2011) conducted a study was to assess the effect of initiation of breast feeding within one hour of the delivery on

maternal- infant bonding. Two hundred and eighteen mother- infant dyads were enrolled for the study and considered for analysis. Each group (control and experimental) comprised of one hundred and nine mother-infant dyads. Mothers who initiated breast feeding after one hour of the delivery were considered in the control group and the mothers in the experimental group initiated breastfeeding within one hour of the delivery. Value of t at 24 hrs was -7.428 and at 48 hrs was -8.894. Significant difference p= 0.000 < 0.5 was found between the maternal infant bonding scores of control and experimental group at 24 as well as 48 hours of the delivery. At 24 hours of the delivery, mean ± S.D of score was found 73.6 ± 9.0 in the control group while the score was 81.1 ± 5.3 in the experimental group and at 48 hours it was 74.5 ± 8.9 in control group and 83.3 ± 5.3 in the experimental group. The result revealed that initiation of breast feeding within one hour of delivery improves maternal- infant bonding. So, it is recommended that breast feeding should be initiated within one hours of delivery. [27]

Himani, Kaur, and Kumar (2011) researched the effect of initiation of breastfeeding within one hour of the delivery on maternal- new-born bonding. A total of 218 couplets were enrolled in their study. The control group consisted of 109 couplets who initiated breastfeeding more than one hour after birth. The experimental group consisted of 109 couplets who did initiate breastfeeding within one hour of birth. If it was more than one hour, they were placed in the control group. Maternal new-born bonding was assessed at 24 and 48 hours after delivery using the Maternal Postnatal Attachment Scale.The control group had a mean bonding score of 73.6, while the experimental group had an average bonding score of 81.1 at 24 hours after delivery (Himani et al., 2011). At 48 hours postpartum, the control group had a mean bonding score of 74.5 and the experimental group had an average bonding score of 83.3results shows that a significant difference was found between the maternal newborn bonding scores of the control and experimental groups. The research team recommended that breastfeeding be initiated within one hour of delivery, as long as maternal and newborn health allows, in order to promote optimal maternal-newborn bonding.

Ahn S et al., (2011) conducted a non-synchronized nonequivalent control group pretest-posttest study to assess the effects of breast massage on breast pain, breast-milk sodium, and newborn suckling in early postpartum mothers. Sixty postpartum mothers who were admitted to a postpartum care center and had problems with breastfeeding were recruited.44 were assigned to the intervention group and received two 30-minute breast massages within 10 days of postpartum period. Others were assigned control group and received only routine care. Breast pain was measured using a numeric pain scale and number of times newborns suckled was observed throughout breastfeeding. Breast milk was self-collected to evaluate breast-milk sodium. The results shows that the Mean age of postpartum mothers was 30 years old. Compared to the control group, women in the intervention group reported significant decreases in breast pain ($p<.001$), increases in number of times newborns suckled after the first and second massage ($p<.001$), and a decrease in breast-milk sodium after the first massage ($p=.034$).So finally Breast massage may have effects on relieving breast pain, decreasing breast-milk sodium, and improving newborn suckling.[28]

Bystrova K et al., (2009) conducted a study to assess early contact versus separation: effects on mother-infant interaction one year later the aim of this study was to evaluate and compare possible long-term effects on mother-infant interaction of practices used in the delivery and maternity wards, including practices relating to mother-infant closeness versus separation. A total of 176 mother-infant pairs were randomized into four experimental groups: Group I infants were placed skin-to-skin with their mothers after birth, and had rooming-in while in the maternity ward. Group II infants were dressed and placed in their mothers' arms after birth, and roomed-in with their mothers in the maternity ward. Group III infants were kept in the nursery both after birth and while their mothers were in the maternity ward. Group IV infants were kept in the nursery after birth, but roomed-in with their mothers in the maternity ward. Episodes of early suckling in the delivery ward were noted. The mother-infant interaction was videotaped according to the Parent-Child Early Relational Assessment (PCERA) 1 year after birth. The study results shows that the practice of skin-to-skin contact, early suckling, or both during the first 2 hours after birth when compared with separation between the mothers and their infants positively affected the PCERA

variables maternal sensitivity, infant's self-regulation, and dyadic mutuality and reciprocity at 1 year after birth. These findings support the presence of a period after birth (the early "sensitive period") during which close contact between mother and infant may induce long-term positive effect on mother-infant interaction. We concluded that Skin-to-skin contact, for 25 to 120 minutes after birth, early suckling, or both positively influenced mother-infant interaction 1 year later when compared with routines involving separation of mother and infant.[30]

Kerstin Uvnäs Moberg Danielle K (2013) conducted a study to assess the Oxytocin integrates the function of several body systems and exerts many effects in mothers and infants during breastfeeding. This explains the pathways of oxytocin release and reviews how oxytocin can affect behaviour due to its parallel release into the blood circulation and the brain. Oxytocin levels are higher in the infant than in the mother and these levels are affected by mode of birth. The importance of skin-to-skin contact and its association with breastfeeding and mother-infant bonding is discussed.[38]

Marín Gabriel MÁ et al., (2013) Conducted Randomised controlled trial a study to assess the effectiveness of Analgesia with breastfeeding in addition to skin-to-skin contact during heel prick. The objective of the study was to investigate the analgesic effect (measured with Neonatal Infant Pain Scale (NIPS)) of breastfeeding (BF) in addition to skin-to-skin contact (SSC) versus other methods of non-pharmacological analgesia during blood sampling through heel lance in healthy term neonates. The study conducted at Tertiary level maternity ward, One hundred thirty-six healthy term neonates, wish to breastfeed and absence of feeding during the previous 60 min. Neonates were randomly assigned to four groups: Group breastfed with SSC (BF+SSC Group) (n=35); Group sucrose with SSC (Sucrose+SSC Group) (n=35); SSC Group (n=33); or Sucrose Group (n=33). Babies were recorded with a video camera. Three observers watched the videos and measured NIPS score at three time points (t0: 2 min before heel prick; t1: During heel prick; and t2: 2 min after the heel prick). The influences of non-pharmacological methods on crying time, percentage of crying while sampling, heart rate, number of attempts and duration of

sampling were also studied. The study results showed that BF+SSC Group achieved a significant lower median NIPS score (value=1) compared with other groups (value=2, 4 and 4, respectively). The percentage of neonates with moderate-to-severe pain was also lower in the BF+SSC Group. Both groups BF+SSC and Sucrose+SSC achieved a significant lower percentage of crying compared with SSC Group. Finally conclusion of this study suggests that BF in addition to SSC provides superior analgesia to other kinds of non-pharmacological analgesia in healthy term neonates during heel prick. [43]

Labarere J, et al., (2005) conducted a prospective, randomized, parallel-group, open trial study to assess the Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs. The purpose of this study was to determine whether attending an early, routine, preventive, outpatient visit delivered in a primary care physician's office would improve breastfeeding outcomes. Participants were recruited at a level 3 maternity facility, with an average of 2000 births per year, in France .A total of 231 mothers who had delivered a healthy singleton infant(gestational age: > or =37 completed weeks) and were breastfeeding on the day of discharge were recruited and randomized (116 were assigned to the intervention group and 115 to the control group) between October 1, 2001, and May 31, 2002; 226 mother-infant pairs (112 in the intervention group and 114 in the control group) contributed data on outcomes.. Ninety-two mothers (79.3%) assigned to the intervention group and 8 mothers (7.0%) assigned to the control group reported that they had attended the routine, preventive, outpatient visit in the office of 1 of the 17 primary care physicians participating in the study. Mothers in the intervention group were more likely to report exclusive breastfeeding at 4 weeks (83.9% vs 71.9%; hazard ratio: 1.17; 95% confidence interval [CI]: 1.01-1.34) and longer breastfeeding duration (median: 18 weeks vs 13 weeks; hazard ratio: 1.40; 95% CI: 1.03-1.92). They were less likely to report any breastfeeding difficulties (55.3% vs 72.8%; hazard ratio: 0.76; 95% CI: 0.62-0.93). There was no significant difference between the 2 groups with respect to the rate of any breastfeeding at 4 weeks (89.3% vs 81.6%; hazard ratio: 1.09; 95% CI: 0.98-1.22) and the rate of mothers fairly or very satisfied with their breastfeeding experiences (91.1% vs 87.7%; hazard ratio: 1.04; 95% CI: 0.95-1.14).concluded that findings

might differ in other health care systems, this study provides preliminary evidence of the efficacy of breastfeeding support through an early, routine, preventive visit in the offices of trained primary care physicians. Our findings also suggest that a short training program for practicing physicians might contribute to improving breastfeeding outcomes. Multifaceted interventions aiming to support breastfeeding should involve primary care physicians. [44]

2.1.2 Related to benefits and effects of early sucking

Widström AM et al., (1990) conducted a study to evaluate the effects of suckling within 30 min after birth when skin-to-skin body contact for mothers and infants. The study was done with both cases (n = 32) and control groups (n = 25). Mother-infant interaction during breast-feeding, infants' time spent in nursery and different aspects of breast-feeding were evaluated. Prolactin and gastrin were measured in maternal serum before and after breast-feeding on day 4 post-partum. The aim to evaluate effects of early post-delivery suckling failed since only six of the 32 case infants did suck at this time. In spite of this, we found three significant differences among cases and controls. In the case group where all infants had touched or licked the areola and nipple, the mothers left the infants in the nursery for a significantly shorter time and significantly more mothers talked to their infants during the short breast-feeding observation. Median gastrin levels were significantly lower in cases than in controls both before (P less than 0.01) and after (P less than 0.03) breast-feeding. In conclusion, the infant's early touch of the mother's areola and nipple seemed to have positively influenced the mother/infant relationship during the first four days after birth. It was also associated with lower maternal gastrin levels which suggests that maternal neuroendocrine functions were also influenced. Ten months after birth, we found no differences between cases and controls.[24]

Srivastava S et al., (2014) done a Randomized control trial study on Effect of very early skin to skin contact on success at breastfeeding and preventing early hypothermia in neonates. Conducted over 2 years' period in a tertiary care hospital. Healthy babies delivered normally were included. Very early SSC between mothers and their newborns was initiated in the study group. We studied effective suckling

(using modified infant breastfeeding assessment tool [IBFAT]), breastfeeding status at 6 weeks, maternal satisfaction, thermal regulation, baby's weight and morbidity. T-test, Pearson Chi-square test and non-parametric Mann-Whitney test were used through relevant Windows SPSS software version 16.0.We observed that SSC contributed to better suckling competence as measured by IBFAT score ($P < 0.0001$). More babies in the SSC group were exclusively breastfed at first follow-up visit ($P = 0.002$) and at 6 weeks ($P < 0.0001$). SSC led to higher maternal satisfaction rates, better temperature gain in immediate post-partum period, lesser weight loss was at discharge and at first follow-up (all $P < 0.0001$) and lesser morbidity than the study group ($P = 0.006$).we concluded that Very early SSC is an effective intervention that improves baby's suckling competence, maternal satisfaction, breastfeeding rates and temperature control and weight patterns. [25]

Orün E, et al., (2O10) A descriptive study was done between July in the maternity ward of Dr. Zekai Tahir Burak Maternity and Research Hospital, a certificated Baby-Friendly Hospital. The purpose of this study was to investigate maternal, gestational, and neonatal features associated with the early initiation of breastfeeding. A Babies with postpartum health problems and those hospitalized in the newborn intensive care unit were not included into the study. A total of 577 mothers participated within 4 to 36 hours' postpartum on a voluntary basis. The mothers completed a questionnaire about the gestational, maternal, neonatal, and first suckling characteristics. Of the 577 cases, 35.2% initiated breastfeeding within the first hour while 72.8% of them initiated breastfeeding within the first two hours of birth. In the multivariate logistic analysis, it was found that the factors affecting early breastfeeding status (within the first 2 hours of birth) were maternal illness during pregnancy, caesarean section and preterm birth. We concluded that the prevention of premature birth, limitation of caesarean section indication, management of maternal anaemia, regular and effective pregnancy follow-up visits are important for the early initiation of breastfeeding. [29]

Cadwell K (2007) conducted a study to assess Latching-on and suckling of the healthy term neonate: breastfeeding assessment. Breast feeding problems, especially

with the healthy term neonate latching-on or feeding with a suboptimal latch, are common reasons for early breastfeeding termination when they result in inadequate breastfeeding, poor milk transfer, and sore nipples. This article describes clinical strategies for systematic latch-on and suckling assessment with the goal of improving the skills of clinicians who provide care for breastfeeding women. [31]

Bystrova K et al., (2007) conducted a study to assess the effect of different maternity home practices in St. Petersburg, Russia, as well as of physiological breast engorgement and maternal mood, on milk production in primi- and multiparous women on day four. The amount of milk was studied in relation to the duration of "nearly exclusive" breastfeeding.176 mother-infant pairs were randomised into four groups according to an experimental two-factor design taking into account infant location and apparel. Data were recorded in the delivery ward at 25-120 minutes postpartum and later in the maternity ward. Group I infants (n = 37) were placed skin-to-skin in the delivery ward while Group II infants (n = 40) were dressed and placed in their mother's arms. Both groups later roomed-in in the maternity ward. These infants had the possibility of early suckling during two hours postpartum. Group III infants (n = 38) were kept in a cot in the delivery and maternity ward nurseries with no rooming-in. Group IV infants (n = 38) were kept in a cot in a delivery ward nursery and later roomed-in in the maternity ward. Equal numbers per group were either swaddled or clothed. Episodes of early suckling were noted. Number of breastfeeds, amount of milk ingested (recorded on day 4 postpartum) and duration of "nearly exclusive" breastfeeding were recorded. Intensity of breast engorgement was recorded and a Visual Analogue Scale measured daily maternal feelings of being "low/blue". The results were shown that, on day four, multiparas had lower milk production than primiparas when they were separated from their infants and breastfeeding according to the prescriptive schedule (7 times a day; Group III). In contrast, there was no difference in milk production between multi- and primiparous mothers in the groups rooming-in and feeding on demand (Groups I, II and IV), although multiparas had higher numbers of feedings than primiparas. In addition during the first three days postpartum, multiparous mothers had higher perception of physiological breast engorgement and lower intensity of feeling "low/blue" than

primiparous mothers. Early suckling was shown to positively affect milk production irrespective of parity. Thus Group I and II infants who suckled within the first two hours after birth ingested significantly more milk on day 4 than those who had not (284 and 184 ml respectively, SE = 14 and 27 ml, p = 0.0006).Regression analyses evaluated factors most important for milk production and found in Groups I and II for primiparous women that early suckling, intensity of breast engorgement and number of breastfeeds on day 3 were most important. Intensity of feeling "low/blue" was negatively related to amount of milk ingested. The significant factor for multiparous women was early suckling. Similar results were obtained in Groups III and IV; however, in primiparous mothers, engorgement was the most important factor and in multiparous women it was rooming-in. Amount of milk produced on day 4 was strongly correlated to a duration of "nearly exclusive" breastfeeding ($p < 0.0001$).conclusion of the study were the present data show that ward routines influence milk production. [32]

2.1.3 Related to psychological outcome

Suetsugu Y et al., (2015). Conducted a explorative study to assess The Japanese version of the Postpartum Bonding Questionnaire: Examination of the reliability, validity, and scale structure. The purpose of this study was to develop the Japanese version of the Postpartum Bonding Questionnaire (PBQ) to gather data on Japanese mothers for comparison with other cultures and to examine the scale structure of the PBQ among Japanese mothers. We administered the PBQ to a cross-section of 244 mothers 4 weeks after delivery and again 2 weeks later to 199 mothers as a retest to examine reliability. We used exploratory factor analysis to evaluate the factor structure of the PBQ. Correlations with the Mother-to-Infant Bonding Scale (MIBS), the Maternal Attachment Inventory (MAI), Edinburgh Postnatal Depression Scale (EPDS), and sociodemographic variables were calculated for validation. The results shown that The 14-item version of the PBQ extracted by exploratory analysis consisted of four factors: ‘impaired bonding’, ‘rejection and anger’, ‘anxiety about care’, and ‘lack of affection’. We found significant correlations of the total scores of the PBQ and the 14-item version of the PBQ positively with the MIBS and negatively

with the MAI. Moderate significant correlations with total scores were also found with the EPDS. Total scores for primiparous and depressed mothers were higher than those for multiparous mothers and mothers without depression. The **Conclusion** of this study demonstrated the reliability and validity of the PBQ and the 14-item version of the PBQ in Japanese mothers 4 weeks after delivery. [33]

van Bussel JC et al., (2010) conducted a study, to assess the effectiveness of Three self-report questionnaires of the early mother-to-infant bond: reliability and validity of the Dutch version of the MPAS, PBQ and MIBS.we investigated the reliability and validity of three self-report questionnaires measuring the early emotional bond between a mother and her newborn infant: the Maternal Postpartum Attachment Scale (MPAS), the Postpartum Bonding Questionnaire (PBQ) and the Mother-to-Infant Bonding Scale (MIBS). In a monocentric prospective observational cohort study, 263 mothers completed the MPAS, the PBQ and the MIBS at 8–12 and at 20–25 weeks postpartum. The participants also completed measures of mental health and, during their pregnancy, measures of recalled parental bonding, adult romantic attachment, antenatal attachment and social desirability. In our study, the internal reliabilities of the PBQ and the MPAS were high at 8–12 weeks postpartum but dropped significantly at 20–25 weeks postpartum. Moderately strong correlations between the scales of the PBQ, the MPAS and the MIBS supported their construct validity. Further, weak correlations were found with social desirability and adult attachment representations, whereas moderate correlations were found with antenatal feelings of attachment and antenatal attitudes to motherhood. Finally, maternal feelings of bonding were also moderately associated with maternal mood. Overall, our findings suggest that the MPAS, the PBQ and the MIBS provide a reliable and valid indication of the early emotional tie between a woman and her newborn infant. [34]

Suetsugu Y et al., (2015) conducted a study to assess the effectiveness of The Japanese version of the Postpartum Bonding Questionnaire: Examination of the reliability, validity, and scale structure. The purpose of this study was to develop the Japanese version of the Postpartum Bonding Questionnaire (PBQ) to gather data on Japanese mothers for comparison with other cultures and to examine the scale

structure of the PBQ among Japanese mothers. We administered the PBQ to a cross-section of 244 mothers 4 weeks after delivery and again 2 weeks later to 199 mothers as a retest to examine reliability. We used exploratory factor analysis to evaluate the factor structure of the PBQ. Correlations with the Mother-to-Infant Bonding Scale (MIBS), the Maternal Attachment Inventory (MAI), Edinburgh Postnatal Depression Scale (EPDS), and sociodemographic variables were calculated for validation. Results: The 14-item version of the PBQ extracted by exploratory analysis consisted of four factors: 'impaired bonding', 'rejection and anger', 'anxiety about care', and 'lack of affection'. We found significant correlations of the total scores of the PBQ and the 14-item version of the PBQ positively with the MIBS and negatively with the MAI. Moderate significant correlations with total scores were also found with the EPDS. Total scores for primiparous and depressed mothers were higher than those for multiparous mothers and mothers without depression. Conclusion: The results of this study demonstrated the reliability and validity of the PBQ and the 14-item version of the PBQ in Japanese mothers 4 weeks after delivery. [35]

Brockington A (2010) conducted a study to assess the assess the effectiveness of Screening Questionnaire for mother-infant bonding disorders, purpose of the study is, there is a need in primary care for an easily administered instrument to give early indications of disorders in mother infant relationships. An 84 item questionnaire was administered to 104 subjects, including normal mothers, depressed mothers with a normal mother-infant relationship and mothers with bonding disorders. A principle component analysis was used to select items for scale construction. Scale scores were compared with interview data. Reliability, sensitivity and specificity of the scales were measured. Findings: 4 factors of clinical relevance were obtained and used to construct 4 scales. The questionnaire was reduced to 25 questions. Scale 1 (impaired bonding) had a sensitivity of 0.93 in detecting mothers with bonding disorder. Scale 2 (rejection and anger) specifically identified mothers with severe disorders. Scale 3 may be useful in anxious mothers. Scale 4 signalled the presence of incipient abuse, requiring urgent intervention. The study results shown that this questionnaire can be used, with the Edinburgh Postnatal Depression Scale, by midwives and health visitors, for the early diagnosis of mother-infant bonding disorders. [36]

Gribble KD (2006) conducted a study to assess the effectiveness of attachment and breastfeeding: implications for adopted children and their mothers.physiological and behavioural research, that breastfeeding can play a significant role in developing the attachment relationship between child and mother. As illustrated in the case studies presented, in instances of adoption and particularly where the child has experienced abuse or neglect, the impact of breastfeeding can be considerable. Breastfeeding may assist attachment development via the provision of regular intimate interaction between mother and child; the calming, relaxing and analgesic impact of breastfeeding on children; and the stress relieving and maternal sensitivity promoting influence of breastfeeding on mothers. The impact of breastfeeding as observed in cases of adoption has applicability to all breastfeeding situations, but may be especially relevant to other at risk dyads, such as those families with a history of intergenerational relationship trauma; this deserves further investigation. [37]

Figueiredo et al., (2013) the objective of the study is to review the literature on the association between breastfeeding and postpartum depression. The literature consistently shows that breastfeeding provides a wide range of benefits for both the child and the mother. The psychological benefits for the mother are still in need of further research. Some studies point out that pregnancy depression is one of the factors that may contribute to breastfeeding failure. Others studies also suggest an association between breastfeeding and postpartum depression; the direction of this association is still unclear. Breastfeeding can promote hormonal processes that protect mothers against postpartum depression by attenuating cortisol response to stress. It can also reduce the risk of postpartum depression, by helping the regulation of sleep and wake patterns for mother and child, improving mother's self-efficacy and her emotional involvement with the child, reducing the child's temperamental difficulties, and promoting a better interaction between mother and child. Studies demonstrate that breastfeeding can protect mothers from postpartum depression, and are starting to clarify which biological and psychological processes may explain this protection. However, there are still equivocal results in the literature that may be explained by the methodological limitations presented by some studies. [39]

Lara-Cinisomo S et al., (2017) conducted a study to assess the effectiveness of Associations between Postpartum Depression, Breastfeeding, and Oxytocin Levels in Latina Mothers. Thirty-four Latinas were enrolled during their third trimester of pregnancy and followed through 8 weeks postpartum. Demographic data were collected at enrolment. Depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS) at each time point (third trimester of pregnancy, 4 and 8 weeks postpartum). The Spielberger State-Trait Anxiety Inventory (STAI) was administered postpartum and EPDS anxiety subscale was used to assess anxiety at each time point. Breastfeeding status was assessed at 4 and 8 weeks postpartum. At 8 weeks, OT was collected before, during, and after a 10-minute breast/ bottle feeding session from 28 women who completed the procedures. Descriptive statistics are provided and comparisons by mood and breast feeding status were conducted. Analyses of variance were used to explore associations between PPD, anxiety, breastfeeding status, and OT.The study results showed that just under one-third of women were depressed at enrollment. Prenatal depression, PPD, and anxiety were significantly associated with early breastfeeding cessation (i.e., stopped breastfeeding before 2 months) ($p < 0.05$). There was a significant interaction between early breastfeeding cessation and depression status on OT at 8 weeks postpartum ($p < 0.05$).Finally concluded that Lower levels of OT were observed in women who had PPD at 8 weeks and who had stopped breastfeeding their infant by 8 weeks postpartum. Future studies should investigate the short- and long-term effects of lower OT levels and early breastfeeding cessation on maternal and child well-being. [40]

Brown Arnott B (2014) conducted a study assess the effectiveness of Breastfeeding duration and early parenting behaviour: the importance of an infant-led, responsive style. The aim of this study was to explore the association between early parenting behaviours and breastfeeding duration. Five hundred and eight mothers with an infant aged 0-12 months completed a questionnaire examining breastfeeding duration, attitudes and behaviours surrounding early parenting (e.g. anxiety, use of routine, involvement, nurturance and discipline). Participants were attendees at baby groups or participants of online parenting forums based in the UK.The study results showed that Formula use at birth or short breastfeeding duration were significantly

associated with low levels of nurturance, high levels of reported anxiety and increased maternal use of Parent-led routines. Conversely an infant-led approach characterised by responding to and following infant cues was associated with longer breastfeeding duration. Maternal desire to follow a structured parenting approach which purports use of Parent-led routines and early demands for infant independence may have a negative impact upon breastfeeding duration. Increased maternal anxiety may further influence this relationship. The findings have important implications for Health Professionals supporting new mothers during pregnancy and the postpartum period. [41]

Heinrichs M et al., (2001) conducted a study to assess the effectiveness of suckling on hypothalamic-pituitary-adrenal axis responses to psychosocial stress in postpartum lactating women. In several studies lactation has been shown to be associated with a hypothalamic-pituitary-adrenal axis hypo responsiveness to physical and psychological stressors. As it is not known whether the marked blunting of endocrine stress reactivity in women can be ascribed to suckling as a short-term effect or to lactation in general, the acute effects of suckling on the hypothalamic-pituitary-adrenal axis and the sympathetic-adrenal-medullary system responses to mental stress were investigated in lactating women. Forty-three lactating women were randomly assigned either to breast-feed or to hold their infants for a 15-min period with the onset 30 min before they were exposed to a brief psychosocial stressor (Trier Social Stress Test). Both breast-feeding and holding the infant yielded significant decreases in ACTH, total plasma cortisol, and salivary free cortisol (all $P < 0.01$). There were no significant differences in baseline hormone levels between the groups 1 min before the stress test. In response to stress exposure, ACTH, total plasma cortisol, salivary free cortisol, norepinephrine, and epinephrine were significantly increased in all lactating women (all $P < 0.001$). However, total cortisol and free cortisol responses to stress were attenuated in breast-feeding women ($P = 0.001$ and $P = 0.067$, respectively), who also showed significantly decreasing PRL levels during the stress test ($P = 0.005$). In addition, there was no change in plasma oxytocin or vasopressin in response to the stressor. Breast-feeding as well as holding led to decreased anxiety ($P < 0.05$), whereas, in contrast, stress exposure worsened mood, calmness, and anxiety in the total group (all $P < 0.001$). From these data we conclude

that lactation in women, in contrast to that in rats, does not result in a general restraint of the hypothalamic-pituitary-adrenal axis response to a psychosocial stressor. Rather, suckling is suggested to exert a short-term suppression of the cortisol response to mental stress. [42]

Eriksson C et al., (2006) conducted a study to assess the Content of childbirth-related fear in Swedish women and men--analysis of an open-ended question. The content of childbirth-related fear as described by 308 women and 194 men was analysed and compared in relation to intensity of fear. The content of fear was similarly described by women and men and concerned the following main categories: the labor and delivery process, the health and life of the baby, the health and life of the woman, own capabilities and reactions, the partner's capabilities and reactions, and the professionals' competence and behaviour. Among women, the labor and delivery process was the most frequently reported among the 6 categories of fears, whereas the health and life of the baby was the most frequent among the men. Fears related to own capabilities and reactions were described significantly more often by women with intense fear than by women with mild to moderate fear. The greatest difference between men with intense versus mild to moderate fear was a more frequent expression of concern for the health and life of the woman. Both women and men had fears related to not being treated with respect and not receiving sufficient medical care. This finding suggests that part of the problem with childbirth-related fear is located within the health care system itself. [45]

Larkin P et al., (2012). Conducted a exploration study to assess the exploration of women's experiences of childbirth in the Republic of Ireland. The objective of the study was Women's experiences of childbirth have far reaching implications for their health and that of their babies. This paper describes an exploration of women's experiences of childbirth in the Republic of Ireland. A consisting of focus group interviews (FGIs) identified important aspects of women's childbirth experiences. Four randomly selected maternity units in the Republic of Ireland. A convenience sample of 25 women who volunteered to participate in five focus group interviews. Eligible participants were >18 years, able to discuss their birth experiences in English,

had experienced labour, and had a live healthy baby. Approximately three months following the birth, data were collected using a conversational low moderator style focus group interviews. Three main themes were identified, 'getting started', 'getting there' and 'consequences'. Women experienced labour in a variety of contexts and with differing aspirations. Midwives played a pivotal role in enabling or disempowering positive experiences. Control was an important element of childbirth experiences. Women often felt alone and unsupported. The busyness of the hospital units precluded women centred care both in early labour and in the period following the birth. Some women would not have another baby due to their childbirth experiences. [46]

Baker A Baker (2001) Conducted a study to assess the Perceptions of labour pain by mothers and their attending midwives. The aim of the current study was to examine the perception of pain by labouring women and their attendant midwife, from the onset of labour to delivery. Accurate measurement and appropriate management of pain is a significant problem for attendant medical and nursing personnel. Both the experience and perception of pain are regarded as subjective and are therefore difficult to measure objectively. Indeed, much of the literature reports that pain is often under or over-estimated by nursing staff who as a consequence consistently fail to administer adequate analgesia. Few studies have specifically examined the ability of midwives to assess the pain of labouring women. Design. The short form McGill Pain Questionnaire (SF-MPQ), routinely used to assess pain in obstetric environments, was used to determine pain perception. Thirteen labouring women and nine midwives completed the SF-MPQ every 15 minutes beginning at the time of admittance to the delivery suite. Peak pain ratings for the preceding 15 minutes were obtained without reference to prior ratings or each other's scores. Further, midwives in the maternity unit of The Queen Elizabeth Hospital (TQEH), Adelaide, South Australia completed a survey investigating the cues they use to assess pain during labour. Results. On each measure of pain on the SF-MPQ, the midwives scores correlated with the mothers' scores across the entire pain range. Further analysis showed that mothers' and midwives' pain scores were similar at mild-moderate pain levels, but midwives significantly underestimated pain intensity at

levels that mothers described as severe. The survey responses indicated that midwives rely on both verbal and nonverbal cues to assess pain levels. [47]

2.2 Conceptual Frame Work

A Conceptual framework is a process of ideas, which are framed and utilised for the development of a research design. It helps the researcher to know what data needs to be collected and gives direction to an entire research process.

The study is based on the concept that administration of early suckling will increase the psychological bonding of the mother. The investigator adopted the Wiedenbach's helping art of clinical nursing theory (1964) as a base for developing conceptual frame work. Ernestine Wiedenbach proposes helping the art of clinical nursing theory in 1964 for nursing which describes a desired situation and way to attain it. It directs action towards the explicit goal.

This Theory Has Three Factors

1. Central Purpose
2. Prescription
3. Realities

I) Central Purpose:

It refers to what the nurse wants to accomplish. It is the overall goal towards which a nurse strives.

II) Prescription:

It refers to the plan of care for patients. It will specify the nature of action that will fulfil the nurse's central purpose.

III) Realities:

It refers to the physical, physiological, emotional and spiritual factors that come into play situation involving nursing action. The five realities identified by wiedenbach's are agent, recipient, goal, means and frame work.

The conceptual frame work of the nursing practice according to this theory consists of three steps as follows.

Step I: Identifying the need for help

Step II: Ministering the needed help

Step III: Validating that the need for help was met

Step I: Identifying the need for help

The step involves determining the need for help. The mothers were identified based on democratic variables (age, educational status, family income, dietary pattern, type of family, no. of Children in the family, age at menarche, and plays of living) inclusive and exclusive criteria, non-probability convenient sampling technique was used to assign the primi para mothers in experimental and control group.

Step II: Ministering the needed help

Early suckling was given to experimental group.

Agent : Investigator

Recipient : Maternal new-born bonding of mothers

Goal : To assess the maternal new-born bonding

: To assess the psychological outcome of mothers.

Means : Early suckling was given within 10 minutes

Frame work : Institute of Obstetrics and Gynaecology, Egmore Chennai - 8

Step III: Validating that the need for help was met

It is accomplished by means postpartum bonding questionnaire and Edinburg post natal depression scale. It is followed by an analysis of the findings.

C H A P T E R – III

RESEARCH METHODOLOGY

3.1 Research Approach

The present study is adopted **Quantitative approach.**

3.2 Study Design

In this study the investigator applied analytical Cross sectional research design.

3.3 Study setting

The study was conducted in Labor ward at Institute of Obstetrics and Gynecology, Egmore, Chennai-08. The Institute was unveiled on 26th July 1844 for public service. It is a 1075 bedded maternity hospital, tertiary care center and referral center. The hospital is renowned for its excellence in medical experts, nursing care and quality diagnostic service. All facilities are provided for conducting normal, high risk and instrumental deliveries. IOG has departments like neonatal intensive care unit, family planning services, oncology department, endocrinology, human milk bank and genetic department which are rendering comprehensive care for entire Tamilnadu and neighbouring state like Andhra Pradesh also.

3.4 Duration of the study

The study was conducted for the period of Four weeks from 20. 11.16 to 18.12.16.

3.5 Study population

The study population consists of primi gravida mothers who admitted in labor ward and met inclusion criteria.

3.5.1 General Population:

All primi para mothers who delivered normal vaginal delivery at Institute of Obstetrics and Gynaecology, Egmore, Chennai - 8

3.5.2 The target population

In this study target population comprises of all primi para mothers who delivered normal vaginal delivery at Institute of Obstetrics and Gynecology, Egmore, Chennai - 8

3.5.3 Accessible population

Accessible population in this study was all primi para mothers who delivered normal vaginal delivery at Institute of Obstetrics and Gynaecology, Egmore, Chennai 8.

3.6 Sample

Sample consists of primigravida mothers who were admitted in labor ward and delivered the baby Apgar score above 7 with fulfil the inclusive criteria.

3.7 Sample size

The sample size was 60 primigravida mothers.

3.8 Sampling Criterion

3.8.1 Inclusion Criteria

1. The primi mothers who are all willing to participate.
2. The primi mothers who have been admitted during the study period.
3. All the age group of primi mothers
4. All the healthy baby APGAR above 7

3.8.2 Exclusion Criteria

The primi mother who are affected by any systemic disorders

The primi mothers who were not willing to participate.

The baby's APGAR score less than 7

3.9 Sampling Technique

The sampling technique used for this study was non-probability convenient sampling technique.

3.10 Research Variables

3.10.1 Independent Variable – Early suckling.

3.10.2 Dependent variable – maternal new-born bonding

-- Psychological outcome

3.11 Development and description of the tool

3.11.1 Development of the tool

Based on the objectives post-partum bonding questionnaire is prepared to assess the maternal new-born bonding and Edinburg post natal depression scale for psychological outcome. The tool used for the research study is a post-partum bonding questionnaire and Edinburg post natal depression scale. The tool is formulated based on review of literature and discussion with the experts in the field after construction.

3.11.2 Description of the tool

The tool used for this study includes two sections. **Section I and Section II**.

Section I

The structured interview schedule consist of

1. Demographic variables

It consists of items related to demographic data of the primi para mothers which includes (Age, educational status, and type of family, occupational status, income, religion, place of living, and dietary pattern).

2. Obstetrical variables

It consists of Obstetrical variables such as age at menarche, age at marriage, LMP, EDD, gestational age, height, weight and Marriage type.

Section II.

1. Postpartum bonding questionnaire
2. Edinburg post natal depression scale

3.11.3 Scoring key

Postpartum bonding questionnaire

Postpartum Bonding Questionnaire (PBQ), a 25 -item self-report measure developed to assess impairment in the mother-infant relationship during the perinatal period (Brockington et al., 2001). The measure is comprised of four distinct factors. The first factor, Impaired Bonding, includes responses on 12 items and is a general factor that represents overall impairment in the mother-baby relationship. The second factor, Rejection/Pathological Anger, includes responses on seven items and reflects high maternal anger toward the infant. The third factor, Maternal Anxiety, includes responses on four items and reflects high maternal anxiety and anxious attachment. The fourth factor, Risk of Abuse, includes responses on two items and represents risk for physical abuse. The cut-off score for factor 1 is 12, for factor 2 is 17 for factor 3 is 10 and for factor 4 is 4. The lowest possible score on all scales is 0, whereas the highest possible score is 125 for the total PBQ, 60 for the impaired bonding subscale, 35 for the rejection subscale, 20 for the anxiety subscale and 10 for the abuse subscale. Higher scores indicate that the parent has negative affection towards the baby and feels a greater psychological burden with regard to parenting.

Edinburg Post Natal Depression Scale

The EPDS consists of 10 questions. The test can usually be completed in less than 5 minutes. Responses are scored 0, 1, 2, or 3 according to increased severity of the symptom. Items marked with an asterisk (*) are reverse scored (i.e., 3, 2, 1, and 0). The total score is determined by adding together the scores for each of the 10 items. Cut-off scores ranged from 9 to 13 points. Therefore, to err on safety's side, a woman scoring 9 or more points or indicating any suicidal ideation – that is she scores 1 or higher on question #10 – should be referred immediately for follow-up. Even if a woman scores less than 9, if the clinician feels the client is suffering from depression, an appropriate referral should be made.

3.12 Content validity

Validity of the tool was assessed using content validity. Content validity was determined by experts from Nursing and Medical. Post-partum bonding questionnaire was used for assessing the effectiveness of maternal and new born bonding and Edinburg post natal depression scale for assessing the psychological outcome. The tool was developed by the Investigator based on review of literature. They suggested certain modification. They agreed this tool evaluate the maternal newborn bongif and psychological outcome. The modifications and suggestions of the experts were incorporated in the final preparation of tool. The tool had 100 % agreement.

3.12 Protection of human subjects

By submitting the study proposal, permission was obtained from the Institutional ethics committee thus, the investigator followed the ethical guidelines which were issued by the institutional ethics committee. Written consent was obtained from all participants. Throughout the period of the study the respect of patient and the family members was maintained

3.13 Reliability

Reliability is the degree of consistency or dependability with which an instrument measures the attribute it is designed to measure. In this study the reliability of questionnaire statement is established by test, re-test method. There is a significant correlation between test and re-test. According to Karl Pearson's correlation co-efficient method, the reliability of the tool is found. Reliability for knowledge questionnaire 'r'=0.9.

3.15 Pilot Study

After getting permission, the pilot study was conducted to check the clarity of items, reliability, feasibility and practicability of the research design. After obtaining formal permission from the Hospital authorities, the pilot study was conducted in labour room, Institute of Obstetrics and Gynecology, Egmore, Chennai-08, for a period of 1 week. The concerned labour room incharge staff and medical officer were also informed. The

sample size was ten and they were selected by using non- probability convenient sampling technique.

The pilot study was found to be feasible and hence the same procedure was decided to be followed to the main study. There was no modification made in the tool after pilot study. The samples selected for the pilot study were not included for the main study.

3.16 Data collection procedure

The formal procedure, researchers develop to guide the collection of data in a standardized fashion is called data collection procedure. The data collection period was 4 weeks from 20.11.16 to 18.12.16. The researcher got permission from Principal and Ethical committee and HOD of Obstetrics and Gynecological Nursing, College of Nursing, Madras Medical College, Chennai-03. Before the data collection a formal permission was obtained from the Director, Institute of Obstetrics and Gynecology, Egmore, Chennai-08 for main study. All respondents were carefully informed about the purpose of the study and their part during the study and how the privacy was guarded. Ensured confidentiality of the study results. The freedom was given to the client leave to study at her will without assigning any reasons. No routine care was altered or withheld.

Primigravida mothers who were admitted in labour room, based on the inclusion criteria were selected by non-probability convenient sampling technique. The purpose of the study was explained to the primigravida mother and her relatives. The 60 primigravida mothers were assigned for the study. The investigator first introduced herself and obtained consent for the study from the mothers. After proper explanation, the data related to demographic variables and obstetrical variables were collected from the interview method. After delivery of the baby within 10-15 minutes early suckling were initiated. The maternal and new born bonding was assessed by post-partum bonding questionnaire and psychological outcome was assessed by Edinburg post natal depression scale.

3.17 Intervention protocol

Place	Labour ward at IOG
Therapy	Early suckling
Duration	Within 10-15minutes
Administrator	Investigator
Recipient	Primigravida mother who delivered at labour room and Apgar score above 7.

3.18 Data entry and analysis

After the data collected 4 – 5 data were entered in the coding sheet SPSS package was used.at the end of data collection, the collected data was arranged and tabulated to represent the findings of the study. Demographic variables in categorical/dichotomous were given in frequencies with their percentages.

- Obstetrical variables in categorical/dichotomous were given in frequencies with their percentages.
- EPDS score and PBQ score was given in mean and standard deviation.
- Correlation between EPDS score and PBQ score was analysed using karl pearson correlation coefficient method.
- Association between PBQ score with demographic variables are analysed using Oneway ANOVA F-test and independent t-test
- Association between EPDS score with demographic variables are analysed using Oneway ANOVA F-test and independent t-test

Fig.3.2 SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

RESEARCH APPROACE

QUANTITATIVE APPROACH

RESEARCH DESIGN

CROSS SECTIONAL RESEARCH DESIGN

SETTING

INSTITUTE OF OBSTETRICS AND GYNAECOLOGY AT EGMORE

POPULATION

PRIMI PARA MOTHERS DELIVERED BY NORMAL VAGINAL DELIVERY

SAMPLING TECNIQUE

NON-PROBABILITY CONVENIENT SAMPLING TECHNIQUE.

SAMPLE SIZE

(60)

INTERVENTION

EARLY SUCKLING WITH IN 10 MIN

TOOL

POST PARTUM BONDING QUESTIONAIRE AND EDINBURG POST NATAL DEPRESION SCALE

ANALYSIS OF DATA

DESCRIPTIVE AND INFERENTIAL STATISTICS

CHAPTER IV

ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data collected. Statistics is a field of study concerned with techniques or methods of collection of data, classification, summarizing, interpretation, drawing inferences, testing of hypothesis, making recommendations etc. The data was collected from 60 primi para mothers delivered by vaginal at IOG, Egmore. Data collection was done by using demographic variables, post-partum bonding questionnaire and Edinburg post natal depression scale. The analyses were done manually by using descriptive and inferential statistics.

STATEMENT OF THE PROBLEM

"A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai.

OBJECTIVES

The objectives of the study are to

- To assess the maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To assess the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.
- To find out the association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

ORGANISATION OF THE DATA

SECTION A:

- Description of demographic variables of primi gravida mothers.
- Description of obstetrical variables of primi gravida mothers.

SECTION B:

- Assessment of maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.
- Assessment of psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.

SECTION C:

- Association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

TABLE 4. 1: DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF STUDY PARTICIPANTS

Distribution of demographic variables of study participants (Age, educational status, type of family, occupational status, income, religion , place of living , height, weight and dietary pattern.

Demographic variables		No. of primi mothers(n=60)	%
Age	17 -20 years	15	25.0%
	21 -25 years	26	43.3%
	26 -30 years	15	25.0%
	31 -35 years	4	6.7%
Educational status	Illiterate	16	26.7%
	Primary education	26	43.3%
	Secondary education	18	30.0%
Type of family	Nuclear family	26	43.3%
	Joint family	34	56.7%
Occupation status	Employed	5	8.3%
	Unemployed	55	91.7%
Income	Rs.1000-3000	19	31.7%
	Rs.3001-6000	30	50.0%
	Rs.6001-10000	8	13.3%
	> Rs.10000	3	5.0%
Religion	Hindu	46	76.7%
	Christian	10	16.6%
	Muslim	4	6.7%
Place of living	Urban	20	33.3%
	Rural	40	66.7%
Height	≤ 150 cm	22	36.7%
	151-160 cm	25	41.6%
	161-170 cm	13	21.7%
Weight	40-50kg	11	18.3%
	51-60kg	24	40.0%
	61-70kg	25	41.7%
Dietary pattern	Vegetarian	6	10.0%
	Non Vegetarian	54	90.0%

Table 4.1 shows the demographic information of primi mothers those who are participated for the following study on "**"**A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynecology, Egmore, Chennai".

The data from the table 4.1 revealed that Most of the participants were in the (43.3%) Age group of 21 – 25 years. Majority of the participants were in the (45.3%) were primary educated, (56.7%) belongs to joint family, (91.7%) comes from house wife (unemployed),(50%) had income between rupees 3000-6000, (76.7%,)belongs to Hindu,(63.3%) are lived in rural areas,(66.7%) becomes the height between 151 – 160 cm,(41.7%) had the weight between 61 – 70 kgs and (90%) were belongs to non-vegetarian.

TABLE 4.2: DISTRIBUTION OF OBSTETRICAL VARIABLES OF STUDY PARTICIPANTS

Distribution of obstetrical variables of study participants (Age at menarche, Age at marriage, Gestational Age and Marriage type).

Obstetrical variables		No. of primi mothers(n=60)	%
Age at Menarche	12 years	3	10.0%
	13 years	14	46.6%
	14 years	8	26.7%
	>15 years	5	16.7%
Age at Marriage	< 20 years	6	20.0%
	20 -25 years	19	63.3%
	26 -30 years	3	10.0%
	>30 years	2	6.7%
Gestational Age	36 weeks	3	10.0%
	37 weeks	2	6.7%
	38 weeks	6	20.0%
	39 weeks	8	26.6%
	40 weeks	11	36.7%
Marriage Type	Consanguinity	7	23.3%
	Non Consanguinity	23	76.7%

Table 4.2 shows the obstetrics variables information of primi mothers those who are participated in this study. The data from the table 2 revealed that Most of the participants from the study (46.6%) were attained menarche at the Age of 14 years. Majority of the participants (63.3%) were got married at the age of 20 – 25 years, (36.7%) becomes in the gestational age of 40 weeks and (76) belongs to Non consanguinity marriage.

Objective 1: To assess the maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.

TABLE 4.3: POSTPARTUM BONDING QUESTIONNAIRE

Sno	Items	Yes		No	
		n	%	n	%
1	I feel close to my baby	60	100.0%		
2	I wish the old days when I had no baby would come back	2	3.3%	58	96.7%
3	I feel distant from my baby	59	98.3%	1	1.7%
4	I love to cuddle my baby	59	98.3%	1	1.7%
5	I regret having this baby			60	100.0%
6	The baby doesn't seem to be mine			60	100.0%
7	My baby winds me up			60	100.0%
8	I love my baby to bits	60	100.0%		
9	I feel happy when my baby smiles or laughs			60	100.0%
10	My baby irritates me			60	100.0%
11	I enjoy playing with my baby	60	100.0%		
12	My baby cries too much			60	100.0%
13	I feel trapped as a mother			60	100.0%
14	I feel angry with my baby			60	100.0%
15	I resent my baby			60	100.0%
16	My baby is the most beautiful baby in the world	60	100.0%		
17	I wish my baby would somehow go away			60	100.0%
18	I have done harmful things to my baby			60	100.0%
19	My baby makes me feel anxious	60	100.0%		
20	I am afraid of my baby	1	1.7%	59	98.3%
21	My baby annoys me	1	1.7%	59	98.3%
22	I feel confident when caring for my baby	60	100.0%		
23	I feel the only solution is for someone else to look after my baby			60	100.0%
24	I feel like hurting my baby			60	100.0%
25	My baby is easily comforted	60	100.0%		

Table 4.3 shows each question wise Postpartum Bonding Questionnaire responses among primi mothers. The PBQ (Brockington et al., 2001) is a 25-item scale assessing mothers' attitudes towards their infants. Each item is rated on a 6-point Likert scale ranging from 0 (always) to 5 (never).

Table 4.4: Domain wise Postpartum Bonding Questionnaire

Domain	Questions	Items	Yes		No	
			n	%	N	%
Impaired Bonding (12 items)	1	I feel close to my baby	60	100.00%		
	2	I wish the old days when I had no baby would come back	2	3.30 %	58	96.70%
	6	The baby doesn't seem to be mine			60	100.00%
	7	My baby winds me up			60	100.00%
	8	I love my baby to bit	60	100.00%		
	9	I feel happy when my baby smiles or laughs	60	100.00%		
	10	My baby irritates me			60	100.00%
	12	My baby cries too much			60	100.00%
	13	I feel trapped as a mother			60	100.00%
	15	I resent my baby			60	100.00%
	16	My baby is the most beautiful baby in the world	60	100.00%		
	17	I wish my baby would somehow go away			60	100.00%
Rejection/Pathological Anger (7 items)	3	I feel distant from my baby			60	100.0%
	4	I love to cuddle my baby	59	98.3 %	1	1.7%
	5	I regret having this baby			60	100.0%
	11	I enjoy playing with my baby	60	100.0 %		
	14	I feel angry with my baby			60	100.0%
	21	My baby annoys me			60	100.0%
	23	I feel the only solution is for someone else to look after my baby	2	3.3%	58	96.7%
Maternal Anxiety (4 items)	19	My baby makes me feel anxious	60	100.0 %		
	20	I am afraid of my baby			60	100.0%
	22	I feel confident when caring for my baby	57	95.0 %	3	5.0%
	25	My baby is easily comforted	60	100.0 %		
Risk of Abuse (2 items)	18	I have done harmful things to my baby			60	100.00%
	24	I feel like hurting my baby			60	100.00%

Postpartum Bonding Questionnaire (PBQ), a 25 -item self-report measure developed to assess impairment in the mother-infant relationship during the perinatal period (Brockington et al., 2001). The measure is comprised of four distinct factors. The first factor, Impaired Bonding, includes responses on 12 items and is a general factor that represents overall impairment in the mother-baby relationship (e.g., "I feel close to my baby"). The second factor, Rejection/Pathological Anger, includes responses on seven items and reflects high maternal anger toward the infant (e.g., "I regret having my baby"). The third factor, Maternal Anxiety, includes responses on four items and reflects high maternal anxiety and anxious attachment (e.g., "I feel confident when caring for my baby"). The fourth factor, Risk of Abuse, includes responses on two items and represents risk for physical abuse ("I have done harmful things to my baby" and "I feel like hurting my baby"). The cut-off score for factor 1 is 12, for factor 2 is 17 for factor 3 is 10 and for factor 4 is 4. The lowest possible score on all scales is 0, whereas the highest possible score is 125 for the total PBQ, 60 for the impaired bonding subscale, 35 for the rejection subscale, 20 for the anxiety subscale and 10 for the abuse subscale. Higher scores indicate that the parent has negative affection towards the baby and feels a greater psychological burden with regard to parenting.

TABLE 4.5: DOMAIN WISE MEAN POSTPARTUM BONDING QUESTIONNAIRE

Domains	**PBQ score**		
	No. of items	**Mean score**	**SD**
Impaired Bonding	**12**	**4.03**	**0.18**
Rejection/Pathological Anger	**7**	**2.02**	**0.22**
Maternal Anxiety	**4**	**2.95**	**0.21**
Risk of Abuse	**2**	**0.00**	**0.0**
Overall	**25**	**9.00**	**0.32**

The mean scores for the 4 subscales of the 25-item version were as follows: impaired bonding, 4.03 (SD = 0.18); Rejection/Pathological Anger, 2.02 (SD = 0.22); Maternal Anxiety, 2.95 (SD = 0.21); and risk of abuse, 0.00 (SD = 0.0). Overall score is 9.00(SD=0.32).

- Objective 2: To assess the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.

Table 4. 6: EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

S. No	Items	.00		1.00		2.00		3.00	
		n	%	n	%	N	%	n	%
1	I have been able to laugh and see the funny side of things	56	93.3%	4	6.7%				
2	I have looked forward with enjoyment to things			60	100.0%				
3	I have blamed myself unnecessarily when things went wrong			59	98.3%	1	1.7%		
4	I have been anxious or worried for no good reason	60	100.0%						
5	I have felt scared or panicky for no very good reason	1	1.7%	51	85.0%	8	13.3%		
6	Things have been getting on top of me			59	98.3%	1	1.7%		
7	I have been so unhappy that I have had difficulty sleeping	57	95.0%	2	3.3%	1	1.7%		
8	I have felt sad or miserable			60	100.0%				
9	I have been so unhappy that I have been crying			58	96.7%	2	3.3%		
10	The thought of harming myself has occurred to me			57	95.0%	2	3.3%	1	1.7%

Maximum score=30
Possible depression. ≥10

The Edinburgh Postnatal Depression Scale (EPDS) was employed (Cox, Holden, & Sagovsky, 1987) to assess participants' postnatal depression levels. The EPDS is a ten item questionnaire rated on a four-point scale (0 to 3), and the maximum total score is 30.Higher scores indicate greater severity of depressive symptoms. Responses are scored 0, 1, 2 and 3 based on the seriousness of the symptom. Items 3, 5 to 10 are reverse scored (i.e., 3, 2, 1, and 0). The total score is found by adding together the scores for each of the 10 items. Mothers scoring above 10 are likely to be suffering from depression and should seek medical attention.

Table 4.7: EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

S. No	Items	Maximum score	Mean	SD	% of mean score
1	I have been able to laugh and see the funny side of things	3	.07	.25	2.3%
2	I have looked forward with enjoyment to things	3	1.00	.00	33.3%
3	I have blamed myself unnecessarily when things went wrong	3	1.02	.13	34.0%
4	I have been anxious or worried for no good reason	3	.00	.00	0.0%
5	I have felt scared or panicky for no very good reason	3	1.12	.37	37.3%
6	Things have been getting on top of me	3	1.02	.13	34.0%
7	I have been so unhappy that I have had difficulty sleeping	3	.07	.31	2.3%
8	I have felt sad or miserable	3	1.00	.00	33.3%
9	I have been so unhappy that I have been crying	3	1.03	.18	34.3%
10	The thought of harming myself has occurred to me	3	1.07	.31	35.7%
	OVERALL	**30**	**7.38**	**0.61**	**24.6%**

Table 4.8: LEVEL OF DEPRESSION SCALE SCORE

EPDS score	No. of primi para mothers	%
7	**39**	**65.0%**
8	**17**	**28.3%**
9	**4**	**6.7%**
TOTAL	**60**	**100%**

Table 4.8 shows the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery 66.7% of the mothers are having 7 of **edinburgh postnatal depression scale** score , 28.3% of them are having 8 of **edinburgh postnatal depression scale** score , 5% of them are having 9 of **edinburgh postnatal depression scale** score

SCORE INTERPRETATION

Minimum score = 0 Maximum score =3

Maximum score=30

No Depression <10

Possible depression. ≥10

Table 4.9: CORRELATION BETWEEN MATERNAL NEW BORN BONDING AND PSYCHOLOGICAL OUTCOME

Correlation between	Mean ± SD	Karl pearson correlation coefficient	Interpretation
Postpartum Bonding Questionnaire score **Vs** Edinburgh Postnatal Depression Scale score	**9.00 ± 0.32** **7.38 ± 0.61**	**r= 0.41 P=0.01**	There is a positive, moderate correlation between maternal new born bonding and psychological outcome

The correlation coefficient between the 25-item PBQ total score and the EPDS was 0.41 ($p < .01$) Relationship between Postpartum Bonding and Depression findings revealed moderate correlations between PBQ scores and EPDS scores. These findings are comparable with those of previous studies ($r = .43$, Reck et al., 2006; $r = .41$, van Bussel et al. 2010). Furthermore, a recent Japanese study also reported correlations between maternal bonding and depression at 1 month ($r = .46$, Kokubu, Okano, & Sugiyama, 2012) and at 4 months postpartum ($r = .39$, Yoshida et al., 2012.

<u>Interpretation for r-value</u>

Pearson correlation coefficient is denoted by "r"

"r" always lies between -1 to +1

0.0 – 0.2 poor correlation

0.2 - 0.4 fair correlation

0.4 - 0.6 moderate correlation

0.6 – 0.8 substantial correlation

0.8 - 1.0 strong correlation

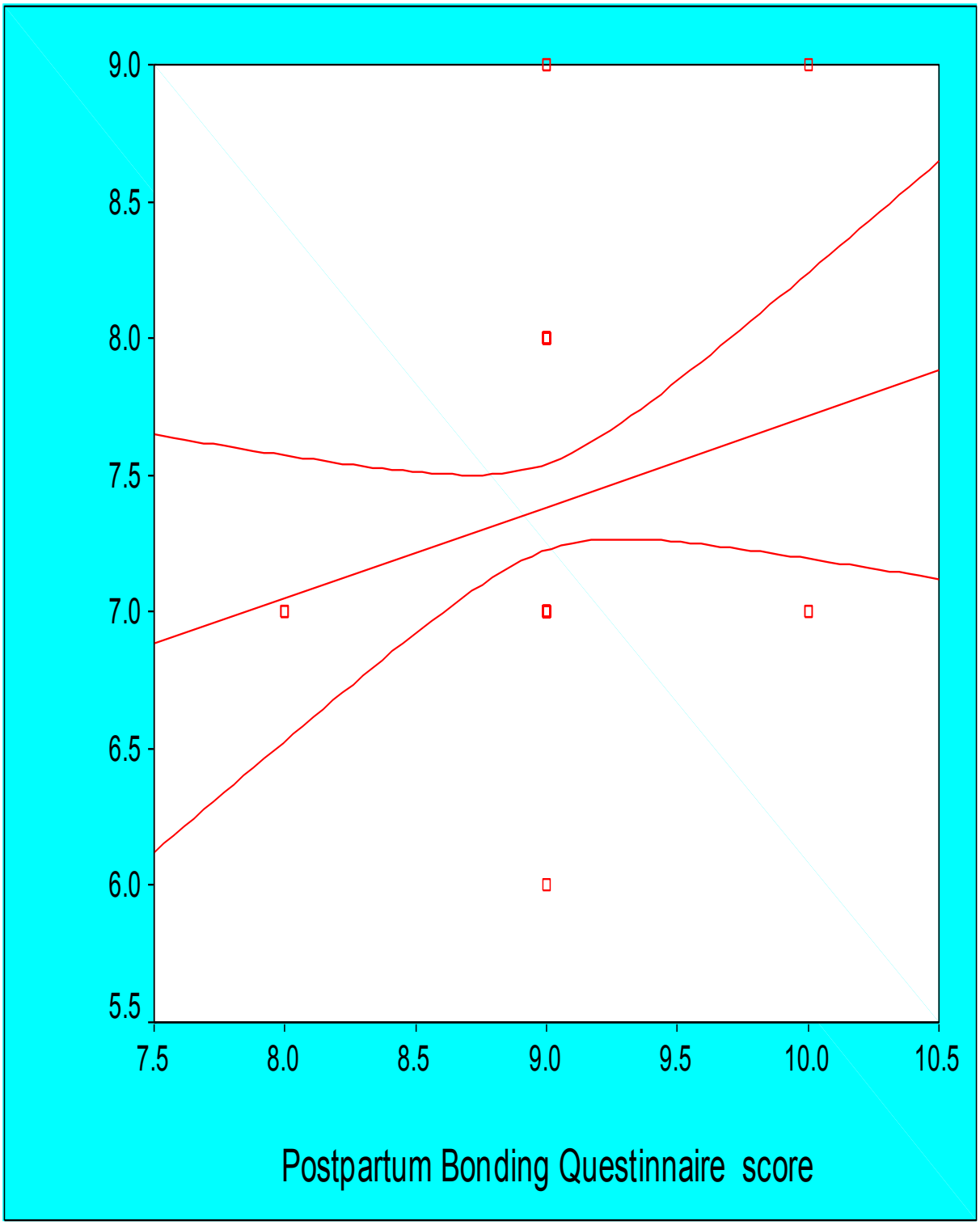


Fig 4.17: Scatterplot with regression estimate shows the moderate, positive correlation between PBQ score and EPDS score

Objective 3: To find out the association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

TABLE 4.10: ASSOCIATION BETWEEN MATERNAL NEW BORN BONDING SCORE AND PRIMI PARA MOTHERS DEMOGRAPHIC VARIABLES

Demographic variables		n	Mean	SD	Oneway ANOVA F-test / t-test
Age	17 -20 years	15	9.10	.38	**F=3.24 P=0.04*S**
	21 -25 years	26	8.96	.34	
	26 -30 years	15	8.79	.26	
	31 -35 years	4	8.71	.20	
Educational status	Illiterate	16	9.14	.20	**F=4.71 P=0.02*S**
	Primary education	26	8.94	.42	
	Secondary education	18	8.89	.18	
Type of family	Nuclear family	26	9.08	.39	**t=2.05 P=0.05*S**
	Joint family	34	8.89	.24	
Occupation status	Employed	5	9.00	.71	t=0.00 P=1.00
	Unemployed	55	9.00	.27	
Income	Rs.1000-3000	19	8.95	.23	F=1.28P=0.28
	Rs.3001-6000	30	9.00	.37	
	Rs.6001-10000	8	9.00	.00	
	> Rs.10000	3	9.33	.58	
Religion	Hindu	46	9.00	.30	F=1.76 P=0.16
	Christian	10	9.10	.32	
	Muslim	4	8.75	.50	
Place of living	Urban	20	8.95	.39	t=0.85 P=0.39
	Rural	40	9.03	.28	
Height	Below 150 cm	22	8.91	.43	F=1.72 P=0.18
	151-160 cm	25	9.08	.28	
	161-170 cm	13	9.00	.00	
Weight	40-50kg	11	9.00	.45	F=1.64 P=0.20
	51-60kg	24	8.92	.28	
	61-70kg	25	9.08	.28	
Dietary pattern	Vegetarian	6	9.00	.89	t=0.00 P=1.00
	Non Vegetarian	54	9.00	.19	

Table 4.10 association between the maternal new born bonding and Primi para mother's demographic variables. Elder, more educated and joint family mothers are having less PBQ score than others. Statistical significance was calculated using Oneway ANOVA F-test and independent t-test.

TABLE 4.11: ASSOCIATION BETWEEN MATERNAL NEW BORN BONDING AND STUDY PARTICIPANTS OBSTETRICAL VARIABLES

Obstetrical variables		No. of primi mothers(n=60)	Mean	SD	Oneway ANOVA F-test / t-test
Age at Menarche	12 years	3	9.00	.53	F=1.18 P=0.33
	13 years	14	8.96	.21	
	14 years	8	9.10	.30	
	>15 years	5	8.88	.35	
Age at Marriage	< 20 years	6	9.20	.28	**F=2.92 P=0.05*S**
	20 -25 years	19	8.75	.39	
	26 -30 years	3	8.72	.15	
	>30 years	2	8.71	.14	
Gestational Age	36 weeks	3	9.05	.20	F=0.48 P=0.75
	37 weeks	2	8.88	.35	
	38 weeks	6	9.08	.49	
	39 weeks	8	8.94	.10	
	40 weeks	11	9.00	.34	
Marriage Type	Consanguinity	7	9.08	.28	t=0.33 P=0.80
	Non Consanguinity	23	8.98	.33	

Table 4.11 association between the maternal newborn bonding, psychological outcome and Primi para mothers Obstetrical variables. Early married mothers are having more PBQ score than others. Statistical significance was calculated using One way ANOVA F-test and independent t-test. Age at menarche has the highly significant **F=2.92 P=0.05*S.**

TABLE 4.12: ASSOCIATION BETWEEN MATERNAL PSYCHOLOGICAL OUTCOME AND STUDY PARTICIPANT DEMOGRAPHIC VARIABLES

Demographic variables		n	Mean	SD	One way ANOVA F-test / t-test
Age	17 -20 years	15	7.90	.63	**F=3.50 P=0.04* S**
	21 -25 years	26	7.50	.71	
	26 -30 years	15	S7.40	.41	
	31 -35 years	4	7.35	.35	
Educational status	Illiterate	16	7.59	.61	**F=3.30 P=0.04* S**
	Primary education	26	7.39	.58	
	Secondary education	18	7.15	.45	
Type of family	Nuclear family	26	7.58	.65	**t=2.24 P=0.03* S**
	Joint family	34	7.22	.59	
Occupation status	Employed	5	7.20	.45	t=0.69 P=0.49
	Unemployed	55	7.40	.63	
Income	Rs.1000-3000	19	7.47	.61	F=0.41P=0.74
	Rs.3001-6000	30	7.30	.65	
	Rs.6001-10000	8	7.50	.53	
	> Rs.10000	3	7.33	.58	
Religion	Hindu	46	7.37	.61	F=0.08 P=0.91
	Christian	10	7.40	.70	
	Muslim	4	7.50	.58	
Place of living	Urban	20	7.40	.60	t=0.02 P=0.88 NS
	Rural	40	7.38	.63	
Height	Below 150 cm	22	7.45	.67	F=0.55P=0.57
	151-160 cm	25	7.40	.65	
	161-170 cm	13	7.23	.44	
Weight	40-50kg	11	7.45	.52	F=0.16 P=0.84
	51-60kg	24	7.33	.56	
	61-70kg	25	7.40	.71	
Dietary pattern	Vegetarian	6	7.33	.82	t=0.20 P=0.83
	Non Vegetarian	54	7.39	.60	

Table 4.12 association between the maternal new born bonding and Primi para mother's demographic variables. Elder, more educated and joint family mothers are having less EPDS score than others. Statistical significance was calculated using One way ANOVA F-test and independent t-test .Age, educational status, type of family **F=3.50 P=0.04* S=3, F.30 P=0.04* S, t =2.24 P=0.03* S**

TABLE 4.13: ASSOCIATION BETWEEN MATERNAL PSYCHOLOGICAL OUTCOME AND STUDY PARTICIPANTS OBSTETRICAL VARIABLES

Obstetrical variables		No. of primi mothers(n=60)	Mean	SD	Oneway ANOVA F-test / t-test
Age at Menarche	12 years	3	7.04	.30	F=2.62 P=0.06
	13 years	14	7.26	.62	
	14 years	8	7.57	.68	
	>15 years	5	7.63	.52	
Age at Marriage	< 20 years	6	8.01	.53	**F=3.44 P=0.05* S**
	20 -25 years	19	7.37	.62	
	26 -30 years	3	7.50	.84	
	>30 years	2	7.02	.50	
Gestational Age	36 weeks	3	7.57	.79	F=0.34 P=0.81
	37 weeks	2	7.25	.46	
	38 weeks	6	7.46	.78	
	39 weeks	8	7.29	.61	
	40 weeks	11	7.39	.50	
Marriage Type	Consanguinity	7	7.38	.51	t=0.08 P=0.99
	Non Consanguinity	23	7.38	.64	

Table 4.13 association between the maternal psychological outcome and Primi para mothers Obstetrical variables. Early married mothers are having more EPDS score than others. Statistical significance was calculated using Oneway ANOVA F-test and independent t-test. Age at menarche has the highly significant.

CHAPTER V

SUMMARY OF THE STUDY FINDINGS

The prime aim of the **study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai".**

5.1 Based on demographic findings

- In this study participants (43.3%) were in the Age group of 21 – 25 years.
- In educational status, (45.3%) of the participants were in the primary educated,
- In residence,(45.3%) were lived in the town.
- (56.7%) were belongs to joint family,
- (91.7%) were comes from house wife (unemployed),
- According to income, Majority of the participants were in the(50%) income between rupees 3000-6000,
- (76.7 %,) were belongs to Hindu,
- The area of living, (63.3%) were lived in rural areas,
- Regarding height, Majority of the participants (66.7%) becomes the height between 151 – 160 cm,
- Regarding weight (41.7%) had the weight between 61 – 70 kgs ,
- (90%) were belongs to non-vegetarian.

5.2 Based on the Obstetric findings

- In this study (46.6%) were attained menarche at the Age of 14 years.
- (63.3%) were got married at the age of 20 – 25 years,
- (36.7%) becomes in the gestational age of 40 weeks and
- (76%) belongs to Non consanguinity marriage.

5.3 Findings based on Postpartum Bonding Questionnaire responses among primi mothers

It shows each question wise Postpartum Bonding Questionnaire responses among primi mothers. The PBQ (Brockington et al., 2001) is a 25-item scale assessing mothers' attitudes towards their infants. Each item is rated on a 6-point Likert scale ranging from 0 (always) to 5 (never).

5.4 Findings based on Domain wise Postpartum Bonding Questionnaire

Postpartum Bonding Questionnaire (PBQ), a 25 -item self-report measure developed to assess impairment in the mother-infant relationship during the perinatal period (Brockington et al., 2001). The measure is comprised of four distinct factors. The first factor, Impaired Bonding, includes responses on 12 items and is a general factor that represents overall impairment in the mother-baby relationship (e.g., "I feel close to my baby"). The second factor, Rejection/Pathological Anger, includes responses on seven items and reflects high maternal anger toward the infant (e.g., "I regret having my baby"). The third factor, Maternal Anxiety, includes responses on four items and reflects high maternal anxiety and anxious attachment (e.g., "I feel confident when caring for my baby"). The fourth factor, Risk of Abuse, includes responses on two items and represents risk for physical abuse ("I have done harmful things to my baby" and "I feel like hurting my baby"). The cut-off score for factor 1 is 12, for factor 2 is 17 for factor 3 is 10 and for factor 4 is 4. The lowest possible score on all scales is 0, whereas the highest possible score is 125 for the total PBQ, 60 for the impaired bonding subscale, 35 for the rejection subscale, 20 for the anxiety subscale and 10 for the abuse subscale. Higher scores indicate that the parent has negative affection towards the baby and feels a greater psychological burden with regard to parenting

5.5 Findings based on Domain wise Mean Postpartum Bonding Questionnaire

The mean scores for the 4 subscales of the 25-item version were as follows: impaired bonding, 4.03 (SD = 0.18); Rejection/Pathological Anger, 2.02 (SD = 0.22); Maternal Anxiety, 2.95 (SD = 0.21); and risk of abuse, 0.00 (SD = 0.0). Overall score is 9.00(SD=0.32).

Findings Of Edinburgh Postnatal Depression Scale (EPDS)

Maximum score=30
Possible depression. ≥10

The Edinburgh Postnatal Depression Scale (EPDS) was employed (Cox, Holden, & Sagovsky, 1987) to assess participants' postnatal depression levels. The EPDS is a ten item questionnaire rated on a four-point scale (0 to 3), and the maximum total score is 30.Higher scores indicate greater severity of depressive symptoms. Responses are scored 0, 1, 2 and 3 based on the seriousness of the symptom. Items 3, 5 to 10 are reverse scored (i.e., 3, 2, 1, and 0). The total score is found by adding together the scores for each of the 10 items. Mothers scoring above 10 are likely to be suffering from depression and should seek medical attention.

5.6 Findings based on Edinburgh Postnatal Depression Scale (EPDS)

It shows the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery 66.7% of the mothers are having 7 of **Edinburgh postnatal depression scale** score , 28.3% of them are having 8 of **Edinburgh postnatal depression scale** score , 5% of them are having 9 of **Edinburgh postnatal depression scale** score

SCORE INTERPRETATION

Minimum score = 0 Maximum score =3

Maximum score=30

No Depression <10

Possible depression. ≥10

5.7 Findings based on Correlation Between Maternal New Born Bonding And Psychological Outcome

The correlation coefficient between the 25-item PBQ total score and the EPDS was 0.41 ($p < .01$) Relationship between Postpartum Bonding and Depression findings revealed moderate correlations between PBQ scores and EPDS scores. These findings are comparable with those of previous studies ($r = .43$, Reck et al., 2006; $r = .41$, van Bussel et al. 2010). Furthermore, a recent Japanese study also reported correlations

between maternal bonding and depression at 1 month (r = .46, Kokubu, Okano, & Sugiyama, 2012) and at 4 months postpartum (r = .39, Yoshida et al., 2012.

Interpretation for r-value

Pearson correlation coefficient is denoted by "r"

"r" always lies between -1 to +1

0.0 – 0.2 poor correlation

0.2 - 0.4 fair correlation

0.4 - 0.6 moderate correlation

0.6 – 0.8 substantial correlation

0.8 - 1.0 strong correlation

5.8 Findings based on Association between maternal new born bonding score and Primi para mothers demographic variables

Association between the maternal new born bonding and Primi para mothers demographic variables. Elder, more educated and joint family mothers are having less PBQ score than others. Statistical significance was calculated using Oneway ANOVA F-test and independent t-test.

5.9 Findings based on Association between maternal new born bonding and Primi para mothers Obstetrical variables

Association between the maternal newborn bonding, psychological outcome and Primi para mothers Obstetrical variables. Early married mothers are having more PBQ score than others. Statistical significance was calculated using One way ANOVA F-test and independent t-test. Age at menarche has the highly significant **F=2.92 P=0.05*S.**

5.10 Findings based on Association between maternal psychological outcome and Primi para mothers demographic variables

Association between the maternal new born bonding and Primi para mothers demographic variables. Elder, more educated and joint family mothers are having less EPDS score than others. Statistical significance was calculated using One way ANOVA F-test and independent t-test .Age, educational status, type of family **F=3.50 P=0.04* S=3, F.30 P=0.04* S, t =2.24 P=0.03* S**

5.11 Findings based on Association between maternal psychological outcome and Primi para mothers Obstetrical variables

Association between the maternal psychological outcome and Primi para mothers Obstetrical variables. Early married mothers are having more EPDS score than others. Statistical significance was calculated using Oneway ANOVA F-test and independent t-test. Age at menarche has the highly significant.

CHAPTER - VI

DISCUSSION

STATEMENT OF THE PROBLEM:

This chapter deals with the discussion of the results of the data analyzed based on the objectives of the study and the hypothesis. The purpose of **"**A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai."

DISCUSSION

In this study, the investigator planned to implement the early suckling will increase the maternal newborn bonding and psychological outcome. However, it has been proved, the investigator conducted study to assess the effectiveness of early suckling in increasing the maternal new born bonding , and pain perception of the primi mothers.

Findings based on the objectives

The discussion was presented in the following headings. Findings based on the objectives

Objective 1:

1.To assess the maternal new born bonding after the early suckling among primi para mothers delivered by normal vaginal delivery.

This study was carried among 60 primi para mothers who were delivered at Institute of Obstetrics and Gynecology, Egmore, Chennai - 8. Experimental and Control Group having 30 primi para mothers in each group. Early suckling was given in the Experimental group within 10 - 15 minutes after delivery. The psychological bonding was assessed by postpartum bonding questionnaire and psychological outcome was assessed by Edinburg postnatal depression scale.

The mean scores for the 4 subscales of the 25-item version were as follows: impaired bonding, 4.03 (SD = 0.18); Rejection/Pathological Anger, 2.02 (SD = 0.22); Maternal Anxiety, 2.95 (SD = 0.21); and risk of abuse, 0.00 (SD = 0.0). Overall score is 9.00(SD=0.32).

The result consistent nearly with the findings of the study by **Himani, Kaur, and Kumar (2011)** who reported that breastfeeding be initiated within one hour of delivery, as long as maternal and newborn health allows, in order to promote optimal maternal-newborn bonding.

The difference between level of maternal new born bonding and early suckling is statistically significant so the research hypothesis 1 was accepted.

Objective 2: To assess the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery.

In this study shows that the psychological outcome after the early suckling among primi para mothers delivered by normal vaginal delivery were 66.7% of the mothers are having 7 of **Edinburgh postnatal depression scale** score , 28.3% of them are having 8 of **Edinburgh postnatal depression scale** score , 5% of them are having 9 of **Edinburgh postnatal depression scale** score.

The result consistent nearly with the findings of the study by Suetsugu Y, Honjo S, Ikeda M, Kamibeppu K.who reported that conducted a study to assess the effectiveness of The Japanese version of the Postpartum Bonding Questionnaire. We administered the PBQ to a cross-section of 244 mothers 4 weeks after delivery and again 2 weeks later to 199 mothers as a retest to examine reliability. Correlations with the Mother-to-Infant Bonding Scale (MIBS), the Maternal Attachment Inventory (MAI), Edinburgh Postnatal Depression Scale (EPDS), and sociodemographic variables were calculated for validation. Results: The 14-item version of the PBQ extracted by exploratory analysis consisted of four factors: ‘impaired bonding’, ‘rejection and anger’, ‘anxiety about care’, and ‘lack of affection’. We found significant correlations of the total scores of the PBQ and the 14-item version of the PBQ positively with the MIBS and negatively with the MAI. Moderate significant correlations with total scores were also found with the EPDS. Total scores for

primiparous and depressed mothers were higher than those for multiparous mothers and mothers without depression. The results of this study demonstrated the reliability and validity of the PBQ and the 14-item version of the PBQ in Japanese mothers 4 weeks after delivery.

Table 10: Association between maternal new born bonding score and Primi para mothers demographic variables. Elder, more educated and joint family mothers are having more than others. There was significant association between the selected demographic variables and after early suckling. Hence the hypothesis H_2 was accepted.

Objective 3: To find out the association between the maternal new born bonding and psychological outcome with their selected demographic and clinical variables of primi para mothers delivered by normal vaginal delivery.

Table 11 was shows that the Association between maternal new born bonding and Primi para mothers Obstetrical variables Primi para mothers Obstetrical variables. Early married mothers are having more PBQ score than others. Age at menarche has the highly significant **F=2.92 P=0.05*S.** Table10 that there was significant association between the selected Obstetrical variables and after early suckling. Hence the research hypothesis H_3 was accepted.

CHAPTER VII

IMPLICATIONS, CONCLUSION AND RECOMMENDATIONS

The present study assessed the effectiveness of early suckling immediately after delivery to primi para mothers. The study results revealed that the early suckling increased the maternal new-born bonding and psychological outcome among primi para mothers delivered at Institute of obstetrics, Egmore.

This chapter deals with limitations, implications

7.1 IMPLICATIONS OF THE STUDY

The findings of the study have the following implications in the areas of nursing service, nursing education, nursing administration and nursing research.

NURSING PRACTICE

The findings of the study clearly enlighten that the early suckling had significantly increased the level of maternal new-born bonding and psychological outcome of the participants may help them to lead a healthy living. This shows that the heath care provider plays a vital role in providing early suckling for the mothers who are delivered in all set up.

NURSING EDUCATION

The nurse educator can motivate the students and given a project to experiment the effect level of maternal bonding.

The nurse educator can motivate the students to do mini- project, on psychological bonding.

The nurse educator should conduct continuing nursing education in the form of workshop, seminars and conference about the other complimentary therapies as part of nursing intervention.

The nursing curriculum must provide adequate clinical exposure to students of antenatal outpatient and inpatient department for identification of high risk mother like as a part of nursing intervention.

NURSING ADMNISTRATION

With technological advances and the ever growing challenges of health care emphasis, the nurse administrators must have a responsibility to provide nurses with substantive continuing nursing education opportunities. This will enable the nurses to update their knowledge, acquires special skills and demonstrate high quality care. Nurse administrator should initiate in organize the continuing nursing education programme on "Early initiation of breast feeding and its importance" and its effectiveness on maternal new-born bonding and psychological outcome for the health care personnel in the hospital and community settings. Nursing administrators should take adequate steps in formulating protocol and policies in providing client education and plans for manpower, money and material methods and time to conduct successful and useful patient educational programmes.

NURSING RESEARCH

This is a need for extensive and intensive research in this area. It opens a big avenue for research on early suckling, increasing the level of maternal new-born bonding and psychological outcome so as to generate more scientific database on which new strategies could be developed. The study can be base line for the future research to build upon. The research also brings about the fact that more studies need to be done at different settings which is culturally acceptable with better teaching strategies of education.

7.2 Recommendations For Future Studies

- The same study could be conducted on a large sample to generalize the results.
- The study could be replicated in different settings with similar facilities.
- The comparative study could be conducted in urban and rural adolescent girls.
- Same study will be conducted in any age groups

7.2 Limitations

- The study was limited to primi gravida women in labour.
- The sample size was small.
- The duration of the study was 4 weeks.

REFERENCE

1. Yvonne Cheng, Aaron B Caughey. Normal Labor and Delivery. 2009 Oct 26. Available at http://en emedicine.medscape.com
2. Diaa M El. Obstetrics Simplified Available online on http://www.gfmer.ch/.
3. A Metin Gulmezogula, Mariana Widmer, Mario Merialdi, Zahida Qureshi, Gilda Piaggio, Diana Elbourne et al. Active management of third stage of labour without controlled cord traction: randomized non- inferiority control trial. Reproductive Health 2009.
4. Moore ER, Anderson GC, Bergman N, Dowswell T. Early skin-to-skin contact for mothers and their healthy newborn infants. Cochrane Database Syst Rev. 2012 May 16;(5):CD003519. doi: 10.1002/14651858.CD003519.pub3. Review. Update in: Cochrane Database Syst Rev. 2016 Nov 25;11:CD003519. PubMed PMID: 22592691; PubMed Central PMCID: PMC3979156.
5. World Health Organization. Global strategy for infant and young child feeding. Geneva: WHO; 2003.
6. EU Project on Promotion of Breastfeeding in Europe. Promoting, protecting and supporting breastfeeding: an action plan for Europe. Luxembourg: European Commission Directorate Public Health; 2002.
7. American Academy of Pediatrics. Breastfeeding and the use of human milk. Pediatrics. 2005;115:496---596.
8. Figueiredo B, Canário C, Field T. Breastfeeding is negatively affected by prenatal depression and reduces pospartum depression. Psychol Med. 2013:43, in press
9. Branco MJ, Nunes B. Uma observac¸ão sobre aleitamento materno. Lisboa: ONSA and Instituto Nacional de Saúde Dr. Ricardo Jorge; 2003.
10. Direc¸ão-Geral de Saúde. Registro do aleitamento materno: relatório Julho de 2010 a Junho de 2011. Lisboa: DGS; 2012.
11. Akman I, Kuscu MK, Yurdakul Z, Ozdemir N, Solako˘glu M, Orhon L, et al. Breastfeeding duration and postpartum psychological adjustment: role of maternal attachment styles. J Paediatr Child Health. 2008;44:369---73.
12. McCarter-Spaulding D, Horowitz JA. How does postpartum depression affect breastfeeding? MCN Am J Matern Child Nurs. 2007;32:10---7.
13. Gagliardi L, Petrozzi A, Rusconi F. Symptoms of maternal depression immediately after delivery predict unsuccessful breastfeeding. Arch Dis Child. 2012;97:355---7.
14. Thome M, Alder EM, Ramel A. A population-based study of exclusive breastfeeding in Icelandic women: is there a relationship with depressive symptoms and parenting stress? Int J Nurs Stud. 2006;43:11---20.

15. Astbury J, Brown S, Lumley J, Small R. Birth events, birth experiences and social differences in postnatal depression. Aust J Public Health. 1994;18:176---84.

16. Hannah P, Adams D, Lee A, Glover V, Sandler M. Links between early post-partum mood and post-natal depression. Br J Psychiatry. 1992;160:777---80.

17. Mezzacappa ES, Katkin ES. Breast-feeding is associated with reduced perceived stress and negative mood in mothers. Health Psychol. 2002;21:187---93.

18. Mezzacappa ES, Endicott J. Parity mediates the association between infant feeding method and maternal depressive symptoms in the postpartum. Arch Womens Ment Health. 2007;10:259---66.

19. Prashant Gangal, Kartikeya Bhagat, Sanjay Prabhu, Rajlakshmi Nair. Initiation of breastfeeding by breast crawl. Available online at : http://breastcrawl.org

20. Jack Newman. The Importance of skin to skin contact. Available online on:http://www.naturalchild.org/.

21. Maria Livia Ognean On Sun, HUMAN MILK AND LACTATION, 6 November, 2016

22. Polit D. F. and Hungler B. P. (2004). nursing research: Priciples and methods (7th ed.). Philadelphia: Lippincott Williams & Wilkins.

23. DC Dutta's Textbook of Obstetrics 8th Edition 2015 Jaypee Brothers Medical Publishers

24. Widström AM, Wahlberg V, Matthiesen AS, Eneroth P, Uvnäs-Moberg K, Werner S, Winberg J. Short-term effects of early suckling and touch of the nipple on maternal behaviour. Early Hum Dev. 1990 Mar;21(3):153-63

25. Srivastava S, Gupta A, Bhatnagar A, Dutta S. Effect of very early skin to skin contact on success at breastfeeding and preventing early hypothermia in neonates. Indian J Public Health. 2014 Jan-Mar;58(1):22-6.

26. Rasha Mohamed Essa ∗ , Nemat Ismail Abdel Aziz Ismail Effect of early maternal/newborn skin-to-skin contact after birth on the duration of third stage of labor and initiation of breastfeeding 2015, Vol. 5, No. 4

27. Himani, Baljit Kaur, Praveen Kumar Effect of initiation of breast-feeding within one hour of the delivery on "maternal- infant bonding" Nursing and Midwifery Research Journal, Vol-7, No. 3, July 2011

28. Ahn S, Kim J, Cho J. [Effects of breast massage on breast pain, breast-milk sodium, and newborn suckling in early postpartum mothers]. J Korean Acad Nurs. 2011 Aug;41(4):451-9.

29. Orün E, Yalçin SS, Madendağ Y, Ustünyurt-Eras Z, Kutluk S, Yurdakök K. Factors associated with breastfeeding initiation time in a Baby-Friendly Hospital. Turk J Pediatr. 2010 Jan-Feb; 52(1):10-6.

30. Bystrova K, Ivanova V, Edhborg M, Matthiesen AS, Ransjö-Arvidson AB, Mukhamedrakhimov R, Uvnäs-Moberg K, Widström AM. Early contact versus

separation: effects on mother-infant interaction one year later. Birth. 2009 Jun;36(2):97-109.

31. Cadwell K. Latching-on and suckling of the healthy term neonate: breastfeeding assessment. J Midwifery Womens Health. 2007 Nov-Dec;52(6):638-42.
32. Bystrova K, Widström AM, Matthiesen AS, Ransjö-Arvidson AB, Welles-Nyström B, Vorontsov I, Uvnäs-Moberg K. Early lactation performance in primiparous and multiparous women in relation to different maternity home practices. A randomised trial in St. Petersburg. Int Breastfeed J. 2007 May 8;2:9.
33. Suetsugu Y, Honjo S, Ikeda M, Kamibeppu K. The Japanese version of the Postpartum Bonding Questionnaire: Examination of the reliability, validity, and scale structure. J Psychosom Res. 2015 Jul;79(1):55-61.
34. van Bussel JC, Spitz B, Demyttenaere K. Three self-report questionnaires of the early mother-to-infant bond: reliability and validity of the Dutch version of the MPAS, PBQ and MIBS. Arch Womens Ment Health. 2010 Oct;13(5):373-84.
35. Suetsugu Y, Honjo S, Ikeda M, Kamibeppu K. The Japanese version of the Postpartum Bonding Questionnaire: Examination of the reliability, validity, and scale structure. J Psychosom Res. 2015 Jul;79(1):55-61.
36. Brockington A Screening Questionnaire for mother-infant bonding disorders,
37. Gribble KD. Mental health, attachment and breastfeeding: implications for adopted children and their mothers. Int Breastfeed J. 2006 Mar 9;1(1):5.
38. Kerstin Uvnäs Moberg Danielle K. Prime Oxytocin effects in mothers and infants during breastfeeding. Infant VOLUME 9 ISSUE 6 2013, 201-206.
39. Figueiredo B, Dias CC, Brandão S, Canário C, Nunes-Costa R. Breastfeeding and postpartum depression: state of the art review. J Pediatr (Rio J). 2013 Jul-Aug;89(4):332-8.
40. Lara-Cinisomo S, McKenney K, Di Florio A, Meltzer-Brody S. Associations Between Postpartum Depression, Breastfeeding, and Oxytocin Levels in Latin Mothers. Breastfeed Med. 2017 Jul 27.
41. Brown A, Arnott B. Breastfeeding duration and early parenting behaviour: the importance of an infant-led, responsive style. PLoS One. 2014 Feb 12;9(2):e8389
42. Heinrichs M, Meinlschmidt G, Neumann I, Wagner S, Kirschbaum C, Ehlert U,Hellhammer DH. Effects of suckling on hypothalamic-pituitary-adrenal axis responses to psychosocial stress in postpartum lactating women. J Clin Endocrinol Metab. 2001 Oct;86(10):4798-804.
43. Marín Gabriel MÁ, del Rey Hurtado de Mendoza B, Jiménez Figueroa L, Medina V, Iglesias Fernández B, Vázquez Rodríguez M, Escudero Huedo V, Medina Malagón L.Analgesia with breastfeeding in addition to skin-to-skin contact during heel prick. Arch Dis Child Fetal Neonatal Ed. 2013 Nov;98(6):F499-503.

44. Labarere J, Gelbert-Baudino N, Ayral AS, Duc C, Berchotteau M, Bouchon N,Schelstraete C, Vittoz JP, Francois P, Pons JC. Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs. Pediatrics. 2005 Feb;115(2):e139-46.

45. Eriksson C, Westman G, Hamberg K. Content of childbirth-related fear in Swedish women and men--analysis of an open-ended question. J Midwifery Womens Health. 2006 Mar-Apr;51(2):112-8.

46. Larkin P, Begley CM, Devane D.'Not enough people to look after you': anexploration of women's experiences of childbirth in the Republic of Ireland.Midwifery. 2012 Feb;28 (1):98-105.

47. baker A Baker A, Ferguson S Ferguson SA, Roach G Roach G.D. & Dawson & Dawson d. (2001) Perceptions of labour pain by mothers and their attending midwives. Journal of Advanced Nursing 35(2), 171-179.

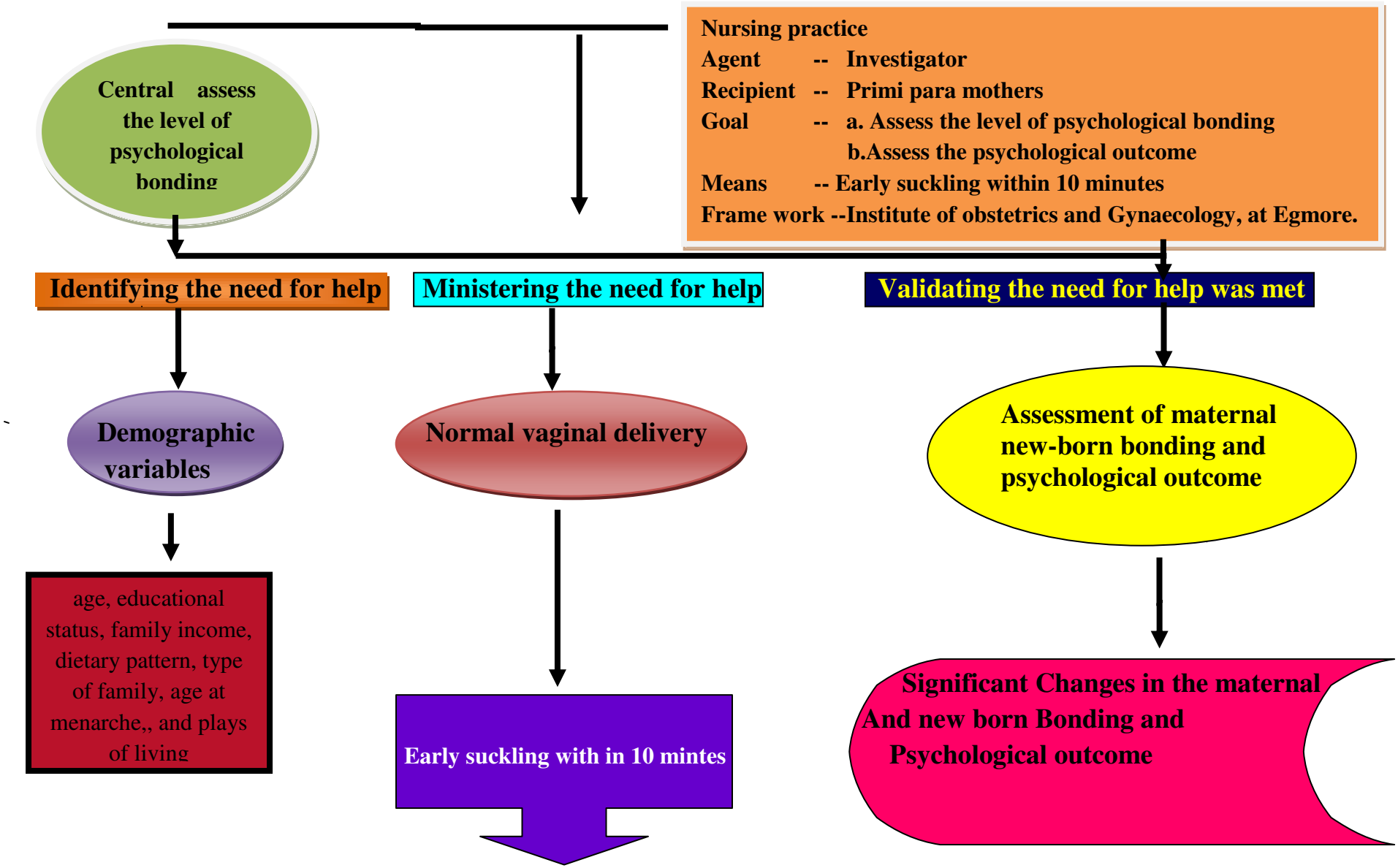


Figure 3.I Modified Model Of Wiedenbach's helping Art Of Clinical Nursing Theory 1964

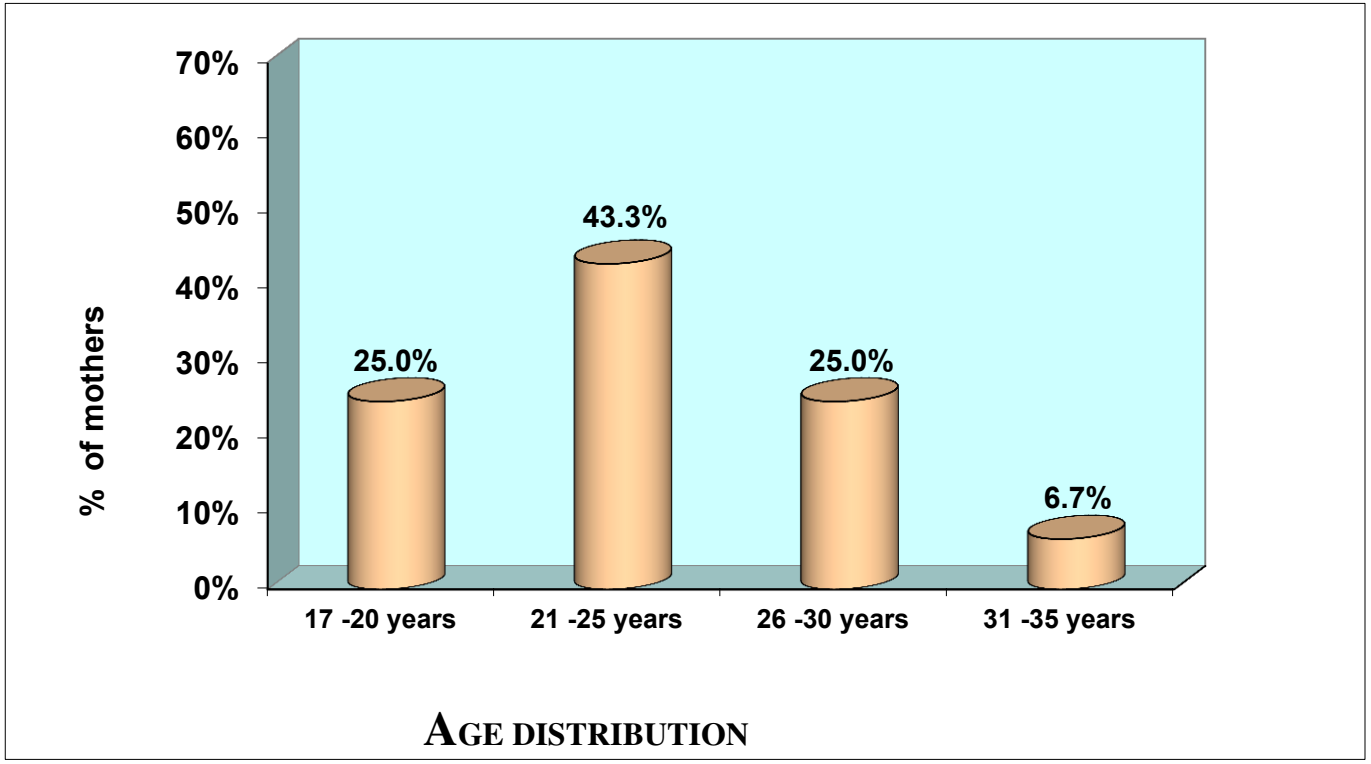


Fig 4.3 Age wise distribution of study participants

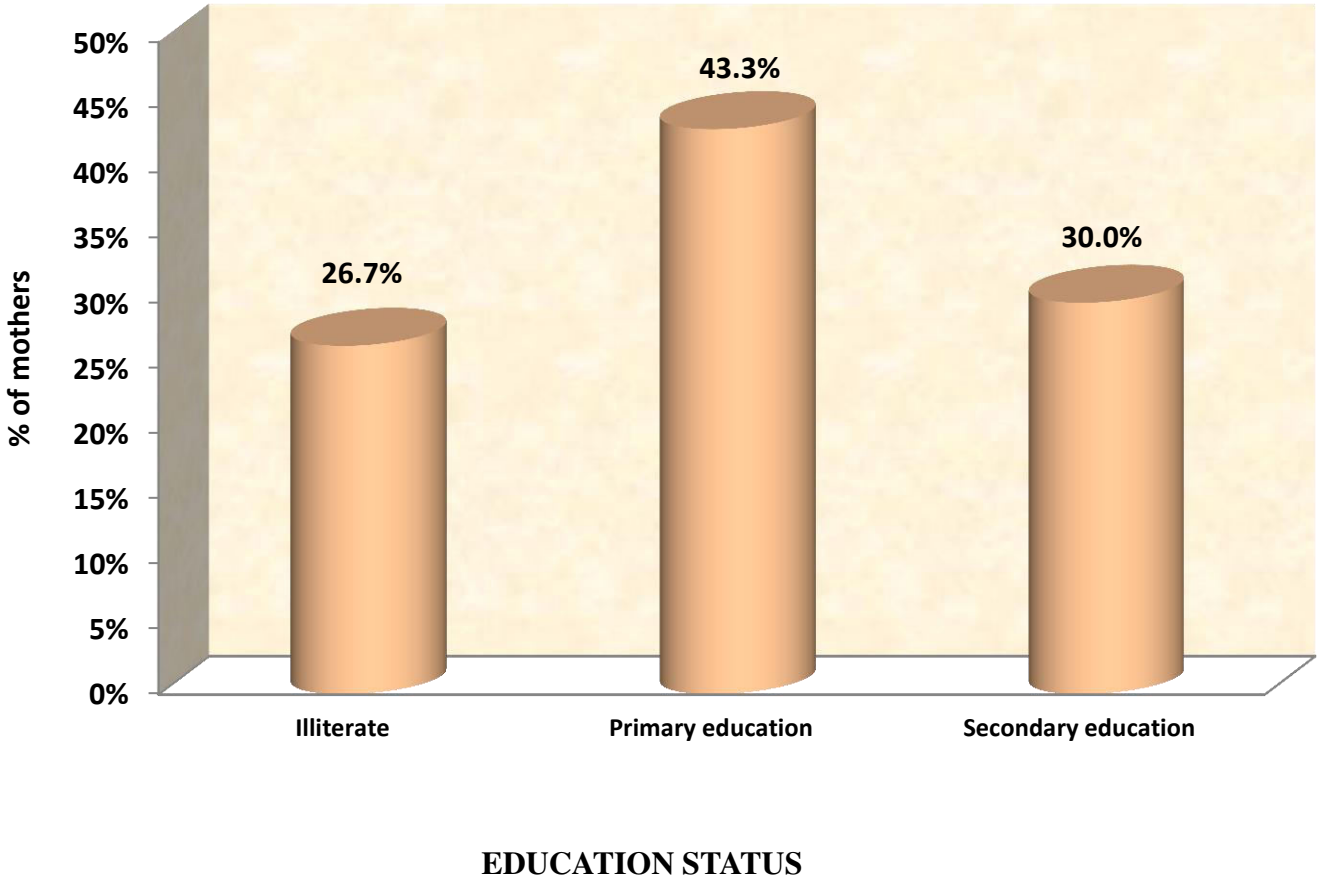


Fig 4.4. Educational Status wise distribution of study participants

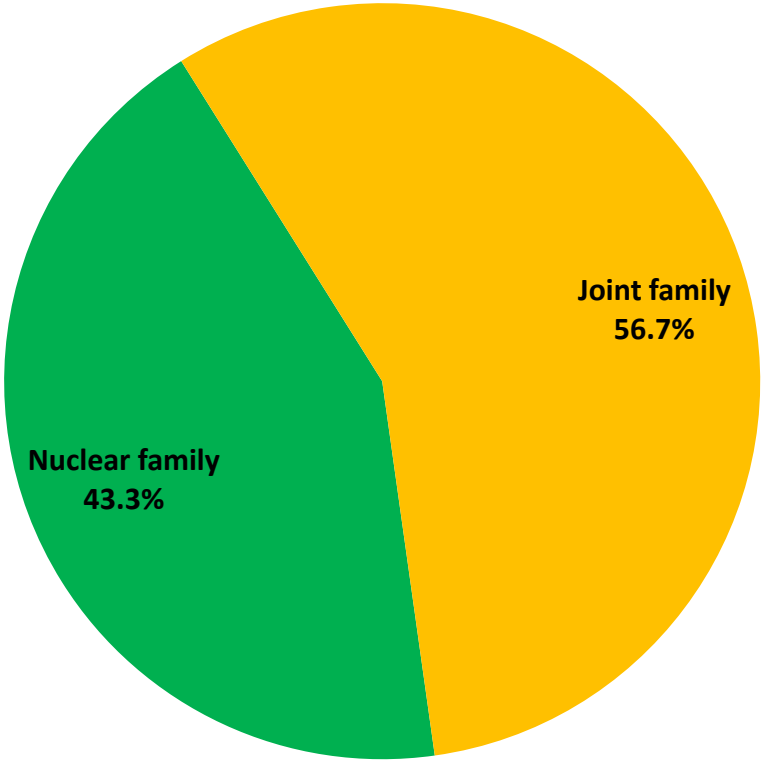


Fig 45 Type of family system wise distribution of study participants

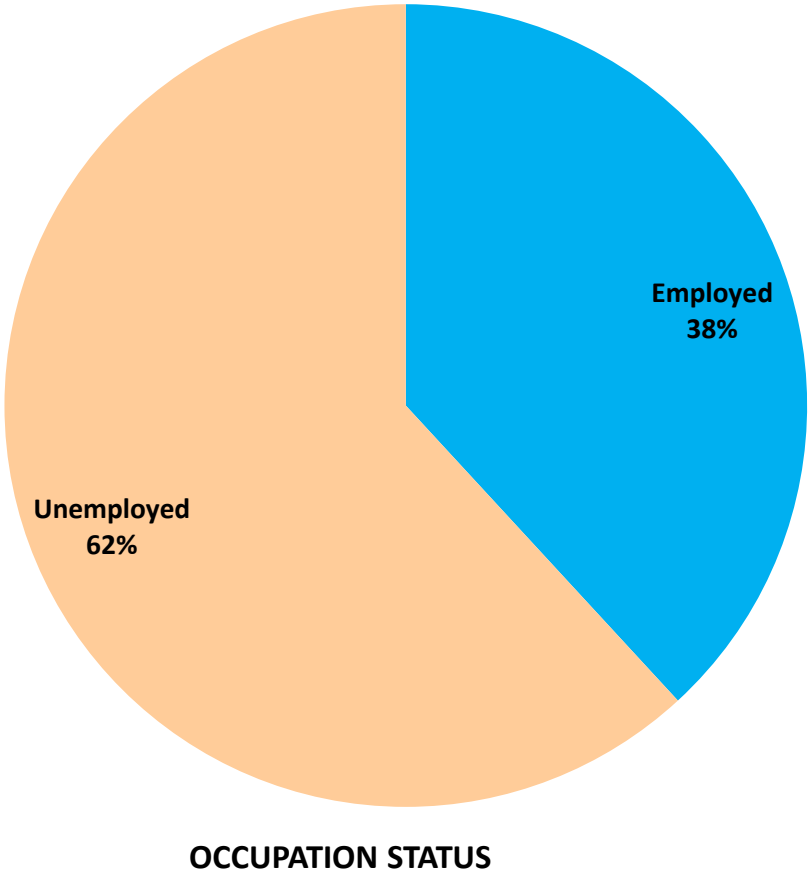


Fig 4.6 Occupational status wise distribution of study participants

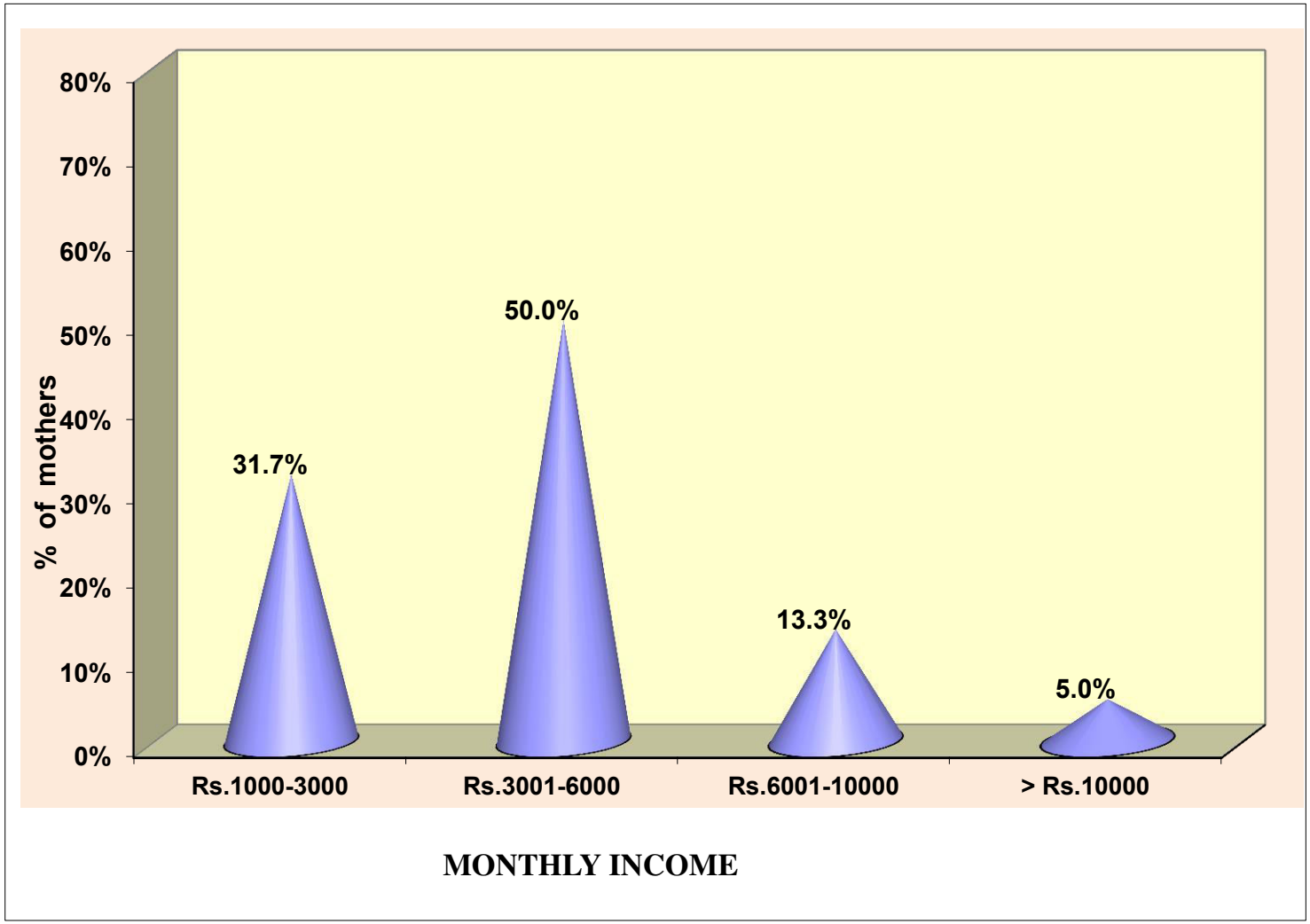


Fig. 4.7. Monthly income wise distribution of study participants

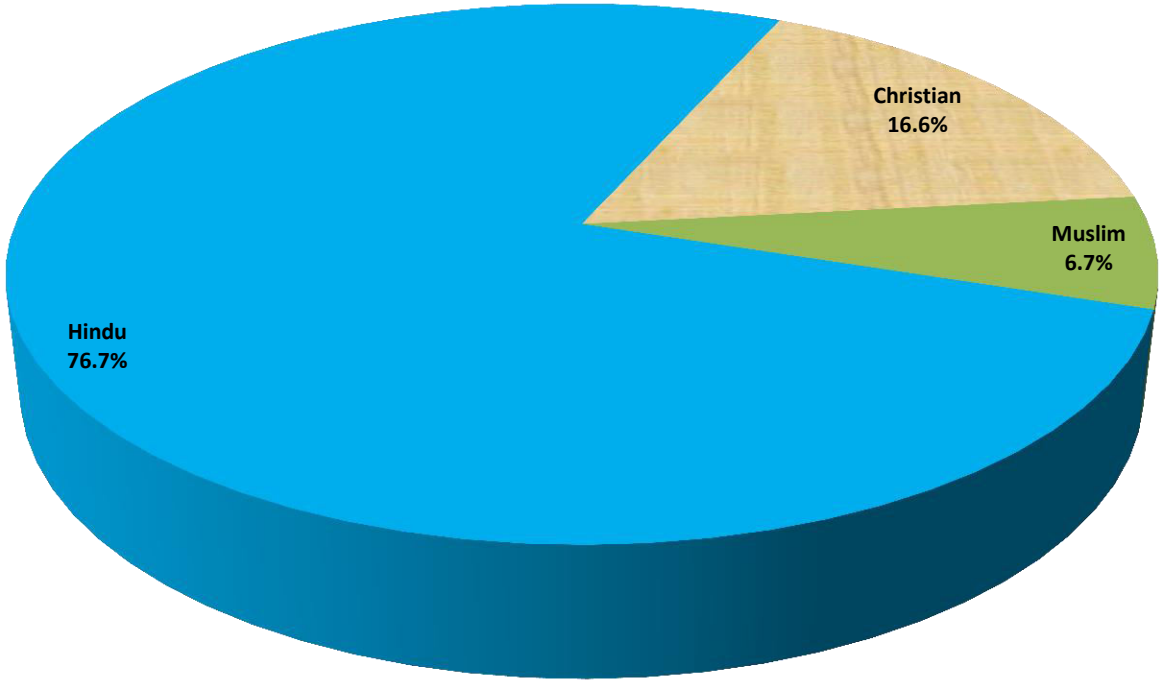


Fig. 4.8 Religion wise distribution of study participants

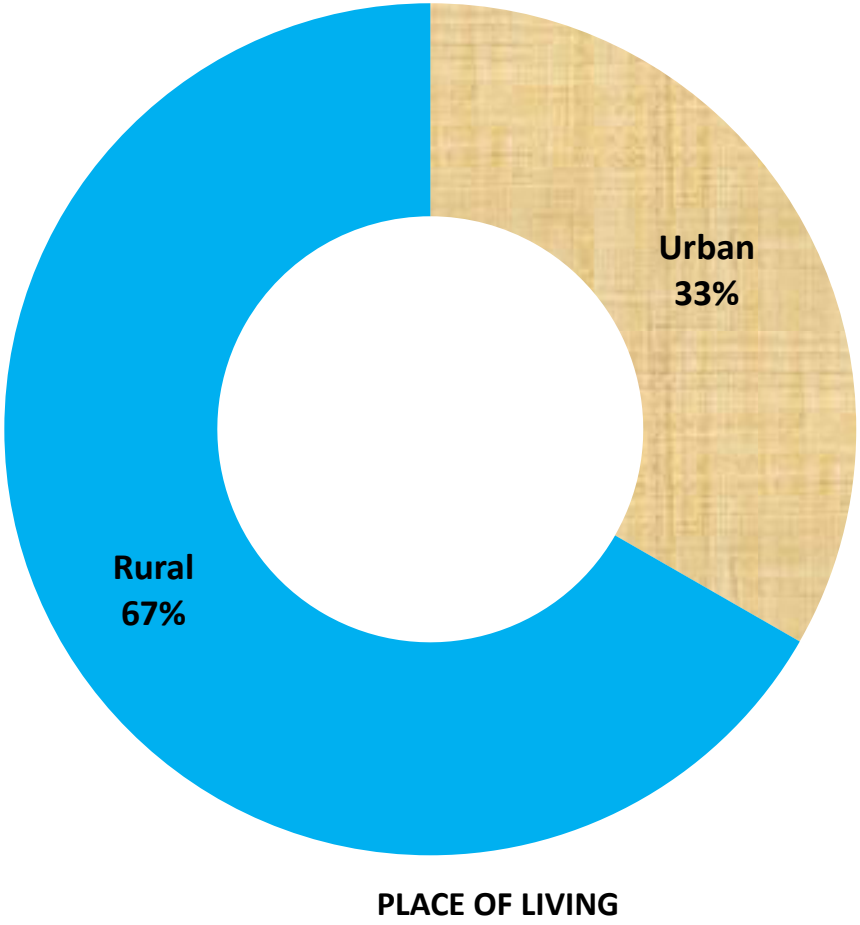


Fig. 4.9. Place of living wise distribution of study participants

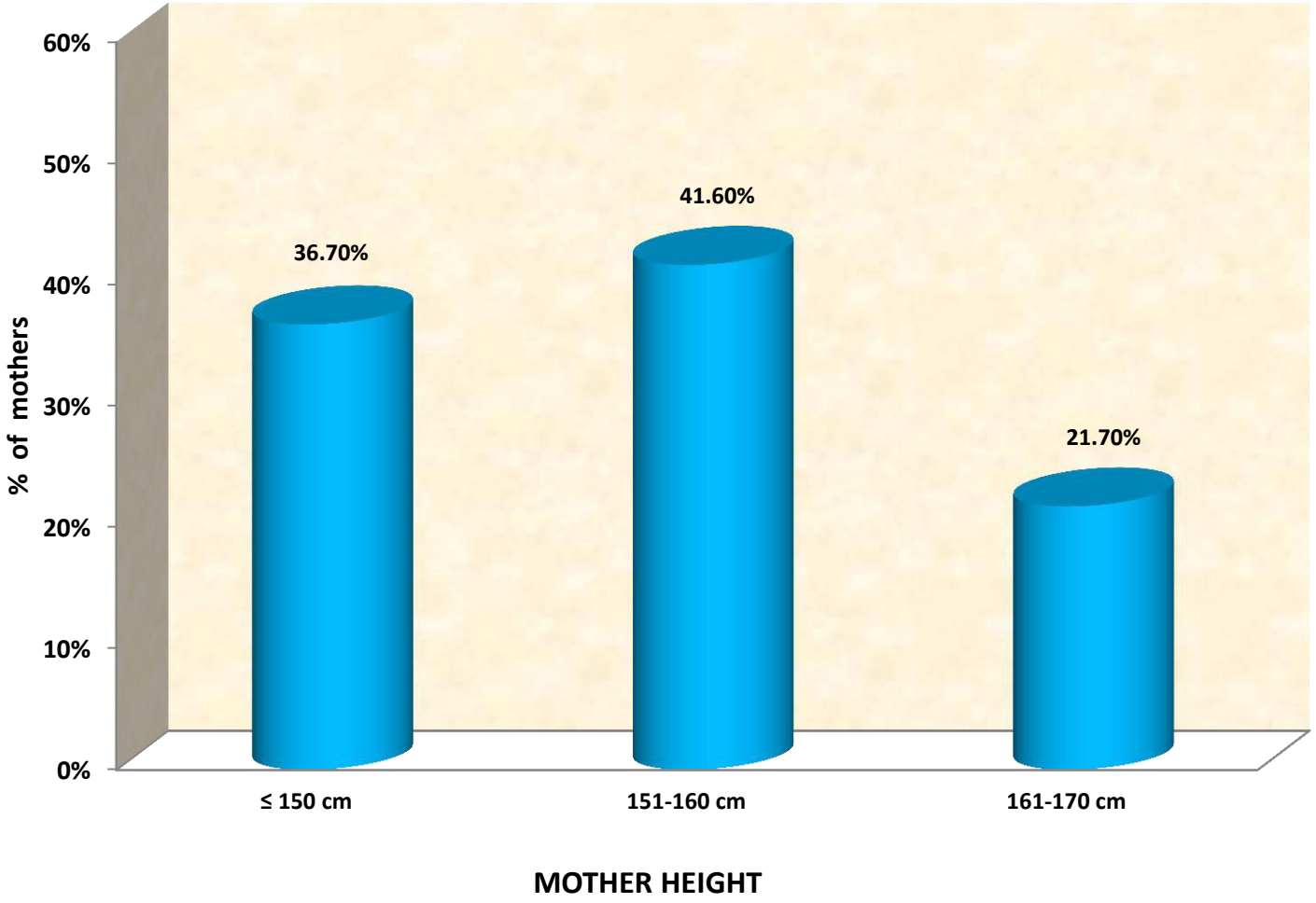


Fig. 4.8. Height wise distribution of study participants

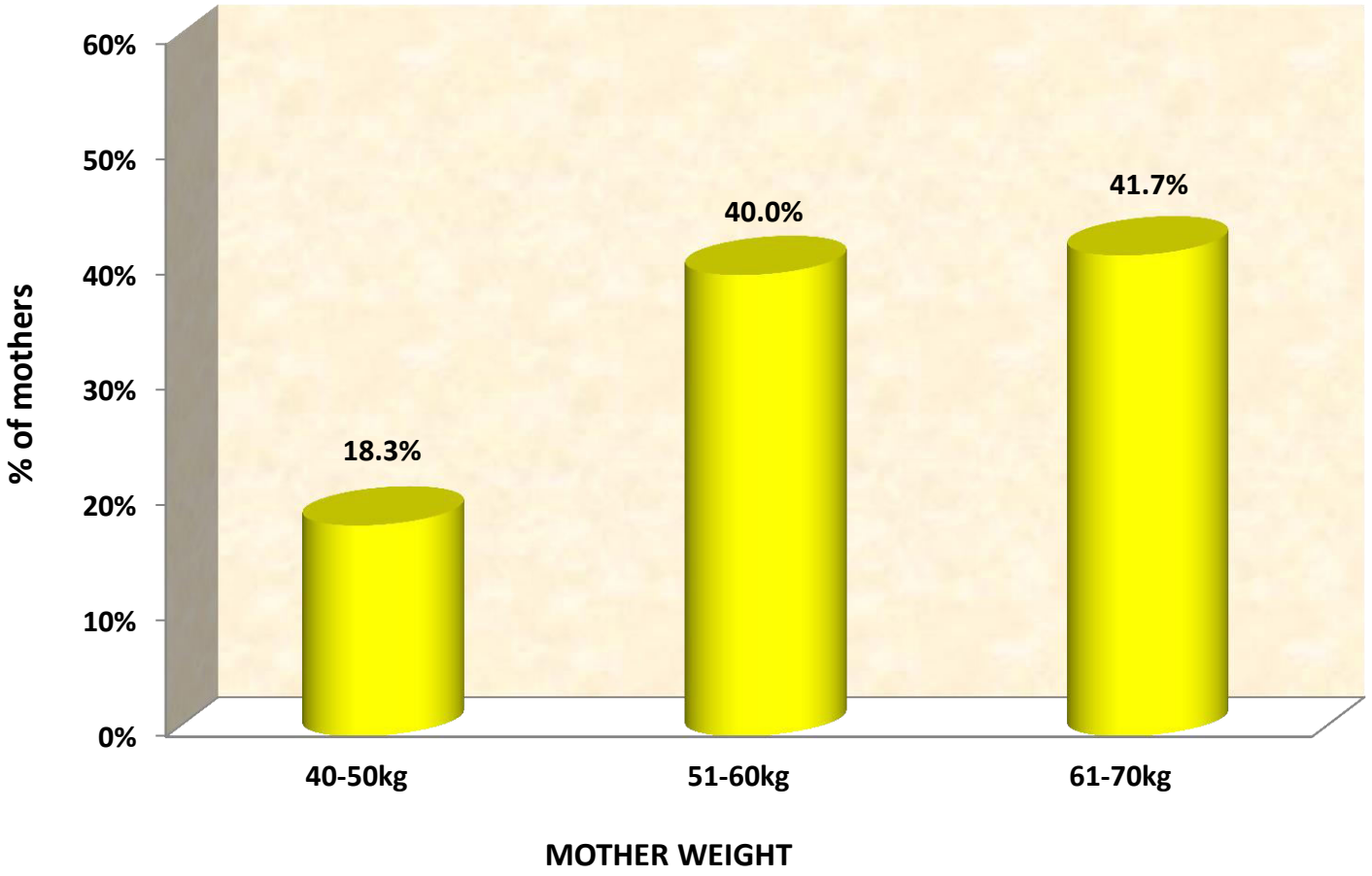


Fig. 4.11. Weight wise distribution of study participants

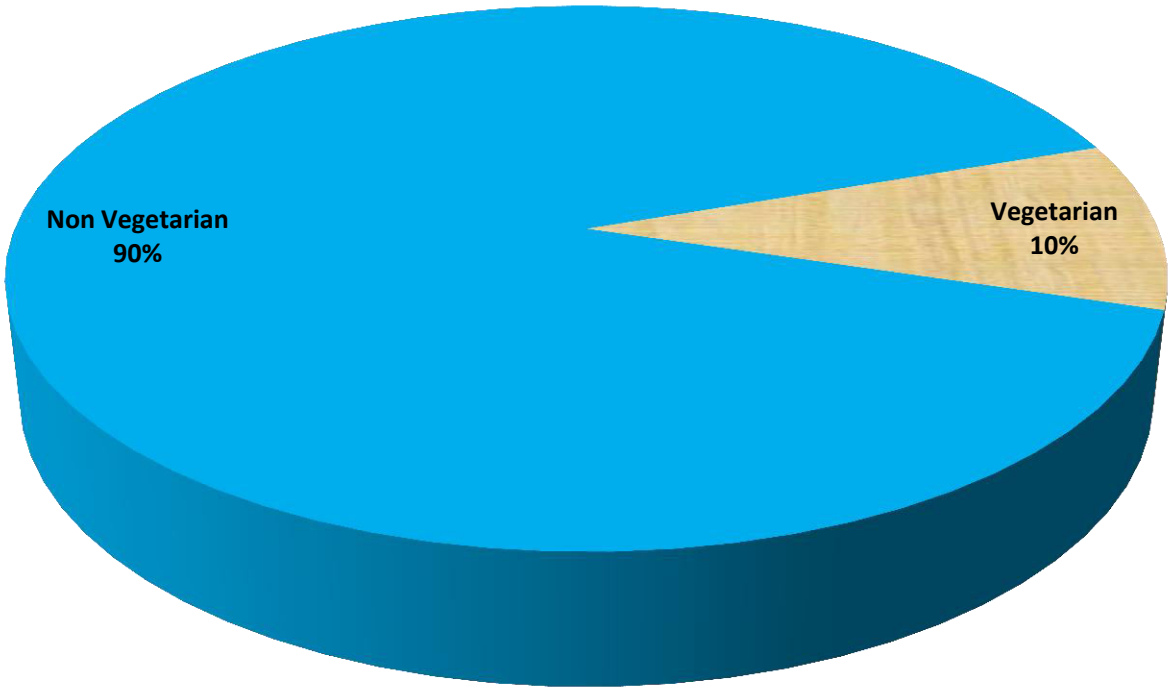


Fig. 4.12. Dilatory pattern wise distribution of study participants

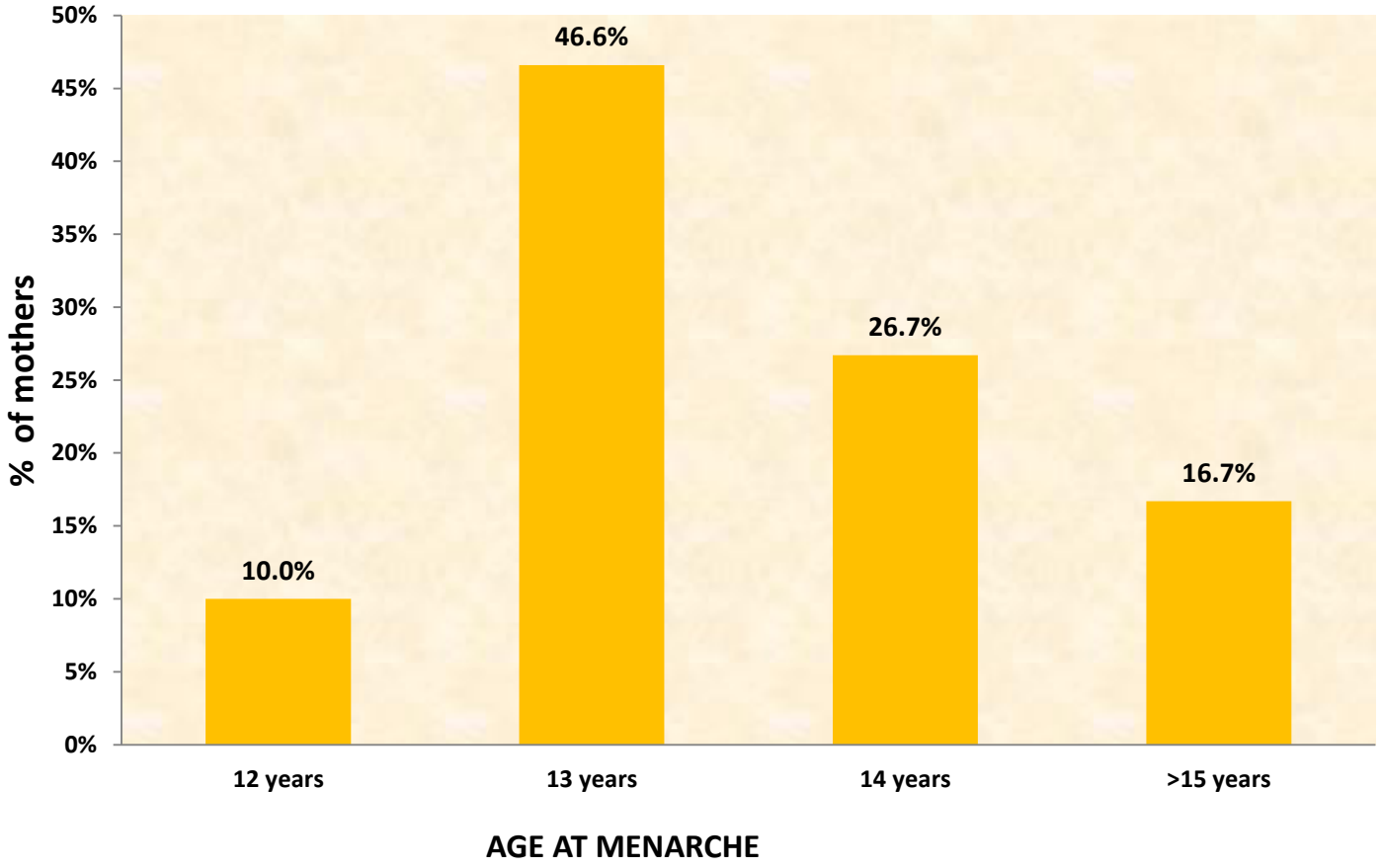


Fig. 4.13. Age at menarche wise distribution of study participants

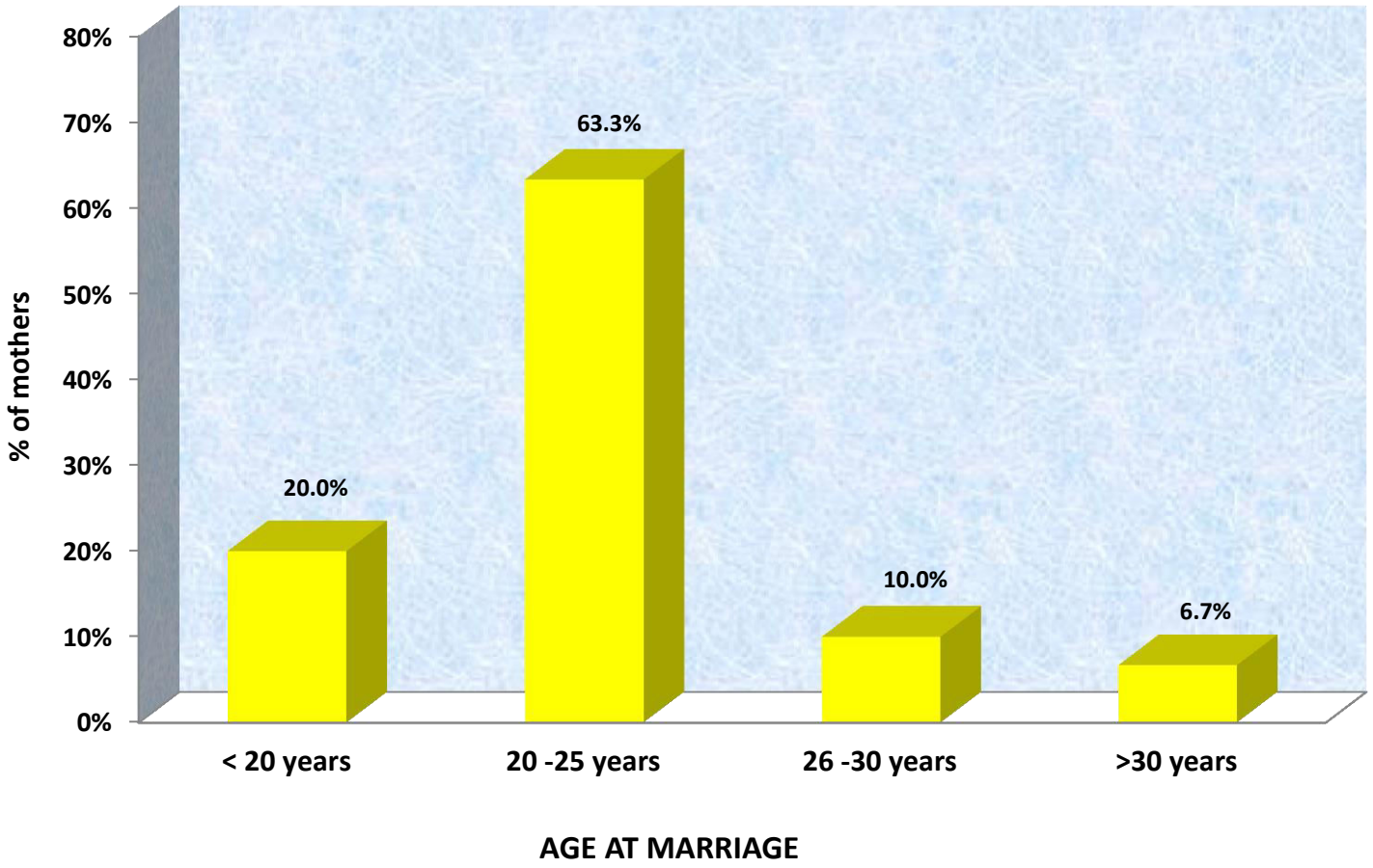


Fig. 4.14. Age at marriage wise distribution of study participants

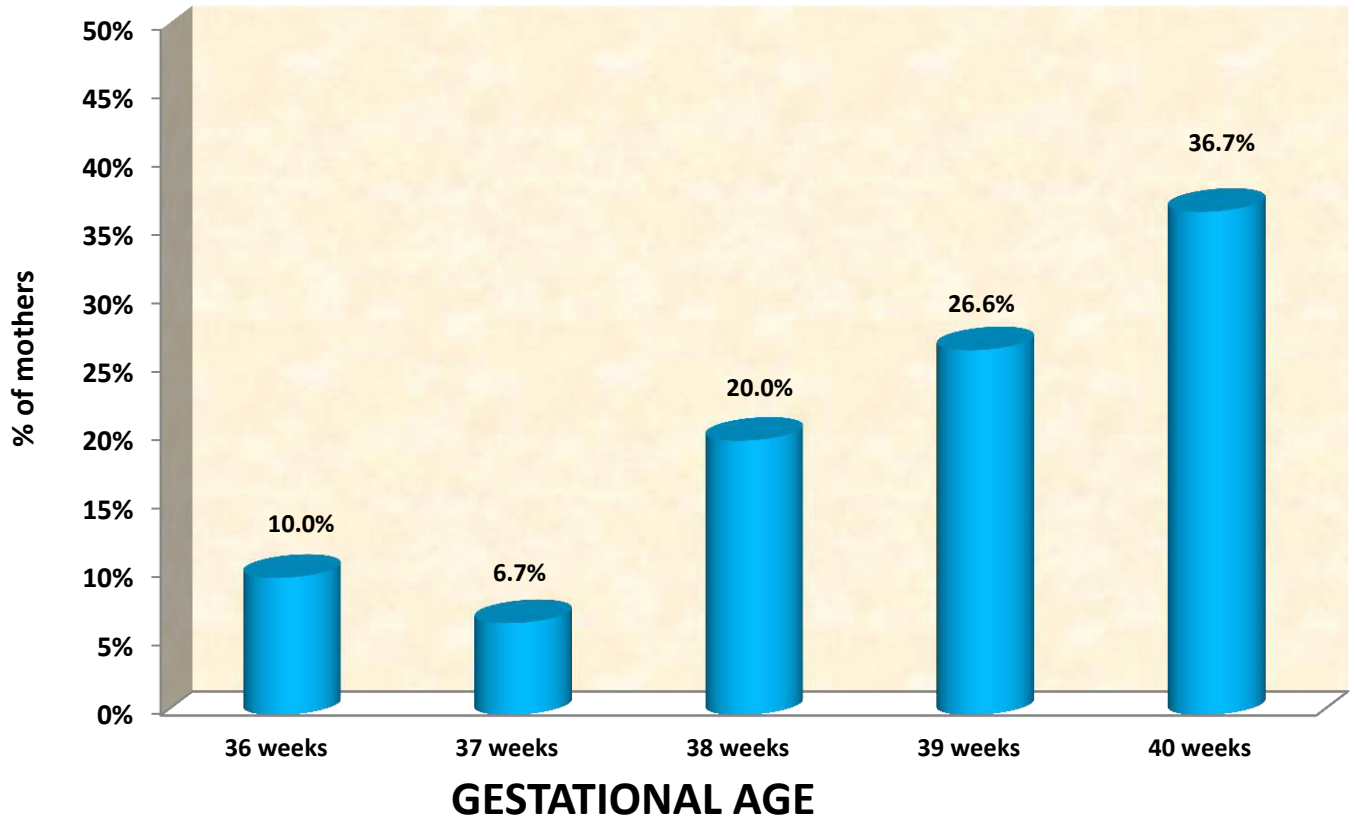


Fig. 4.15. Gestational age wise distribution of study participants

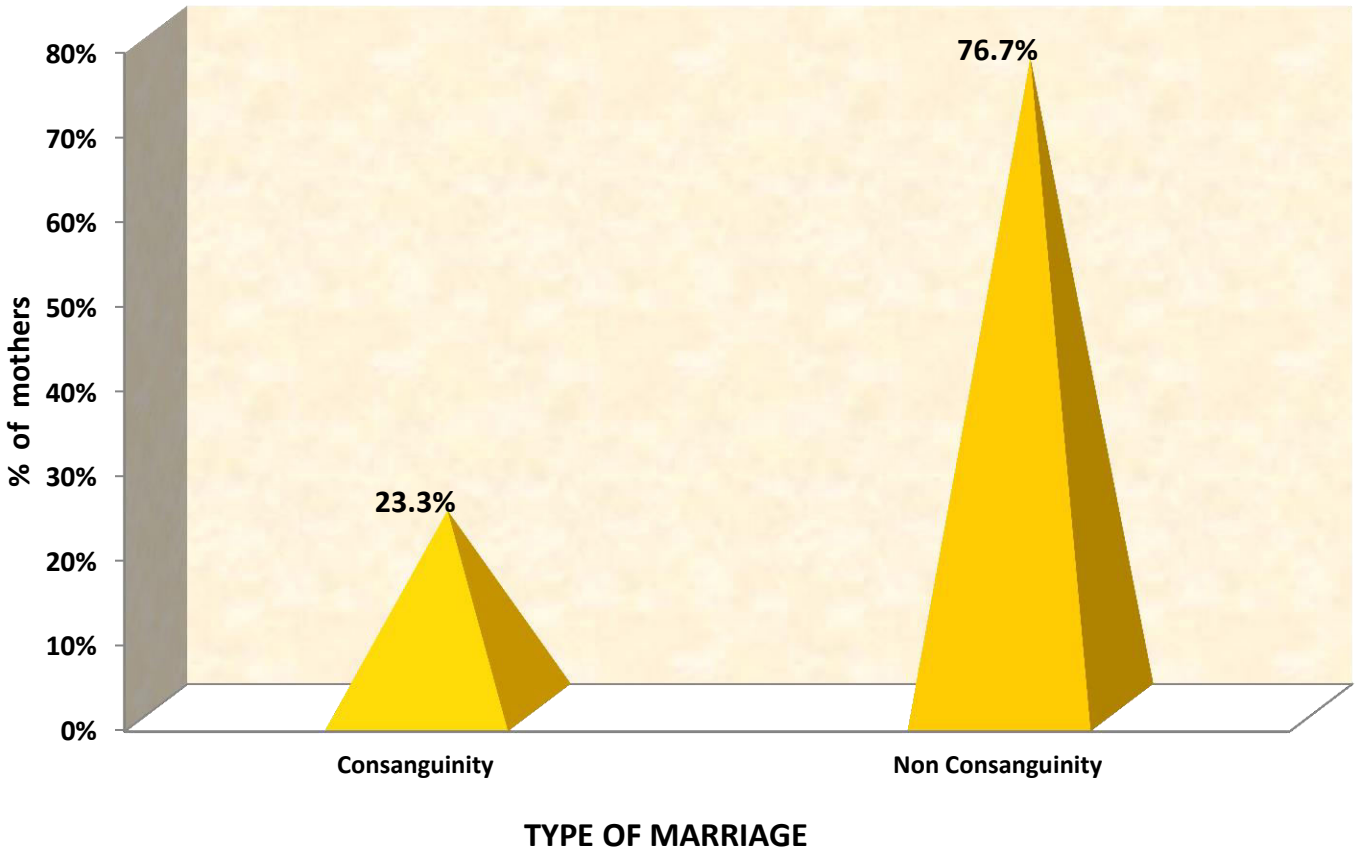


Fig. 4.16. Types of marriage wise distribution of study participants

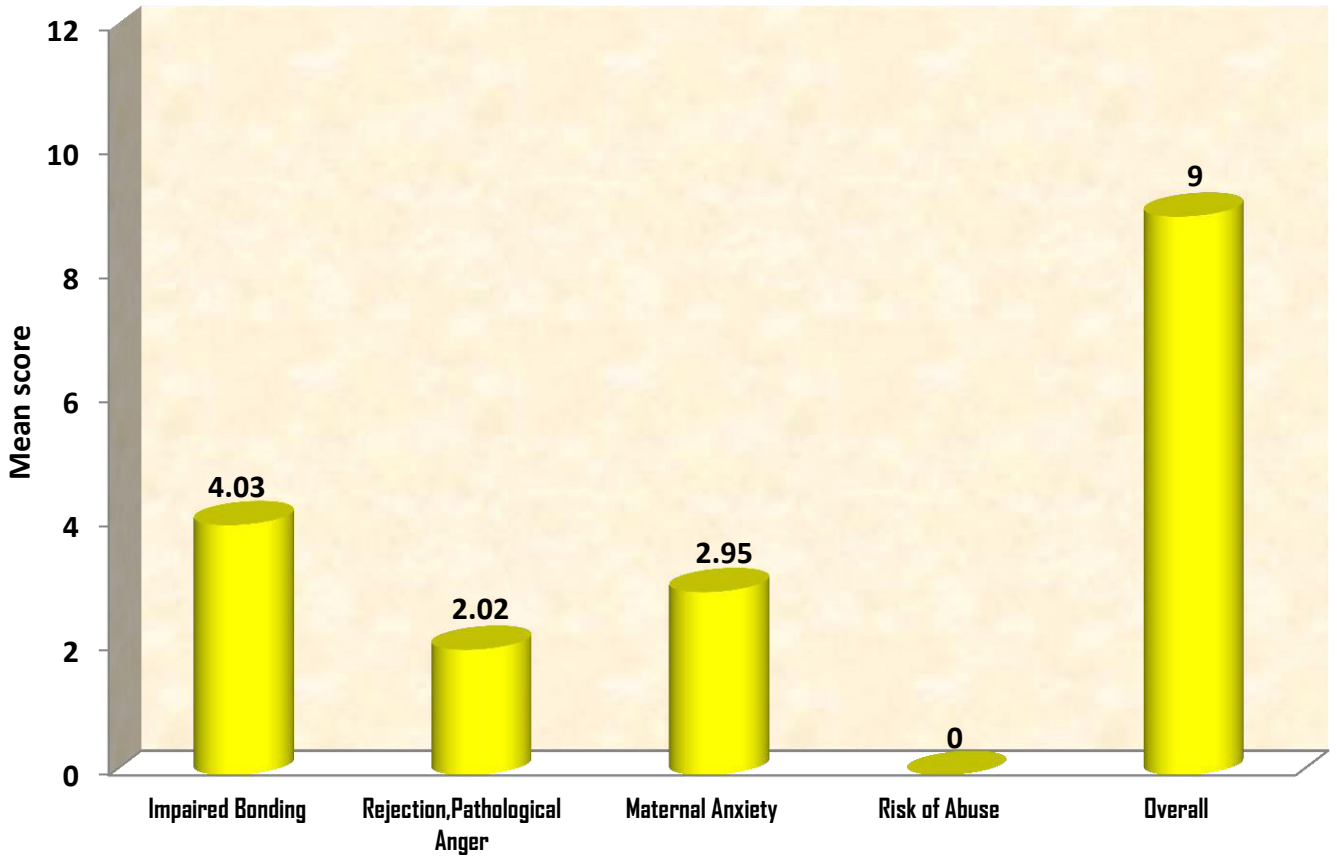


Fig. 4.17. Mean score of post-partum bonding questionnaire

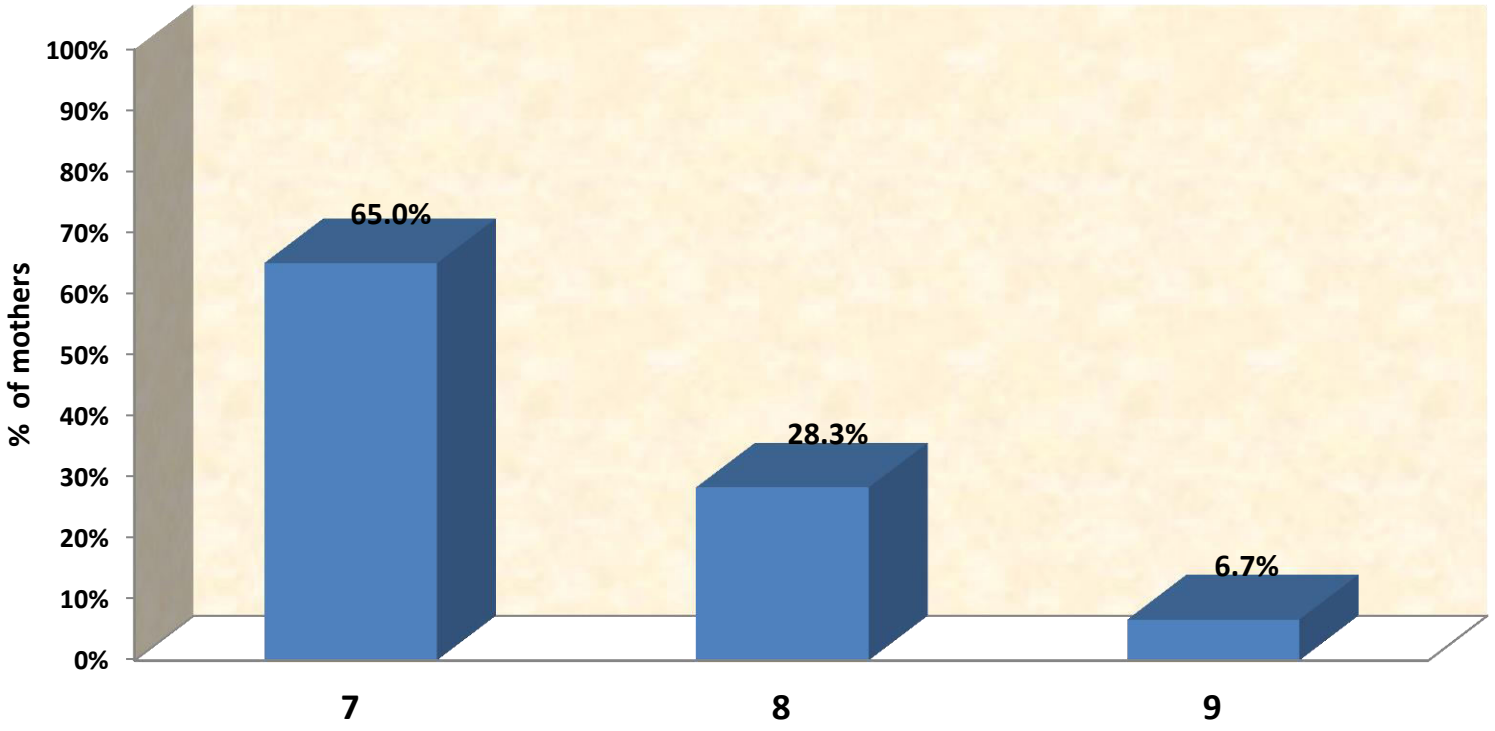


Fig. 4.18. Edingburgh postnatal depression scale score

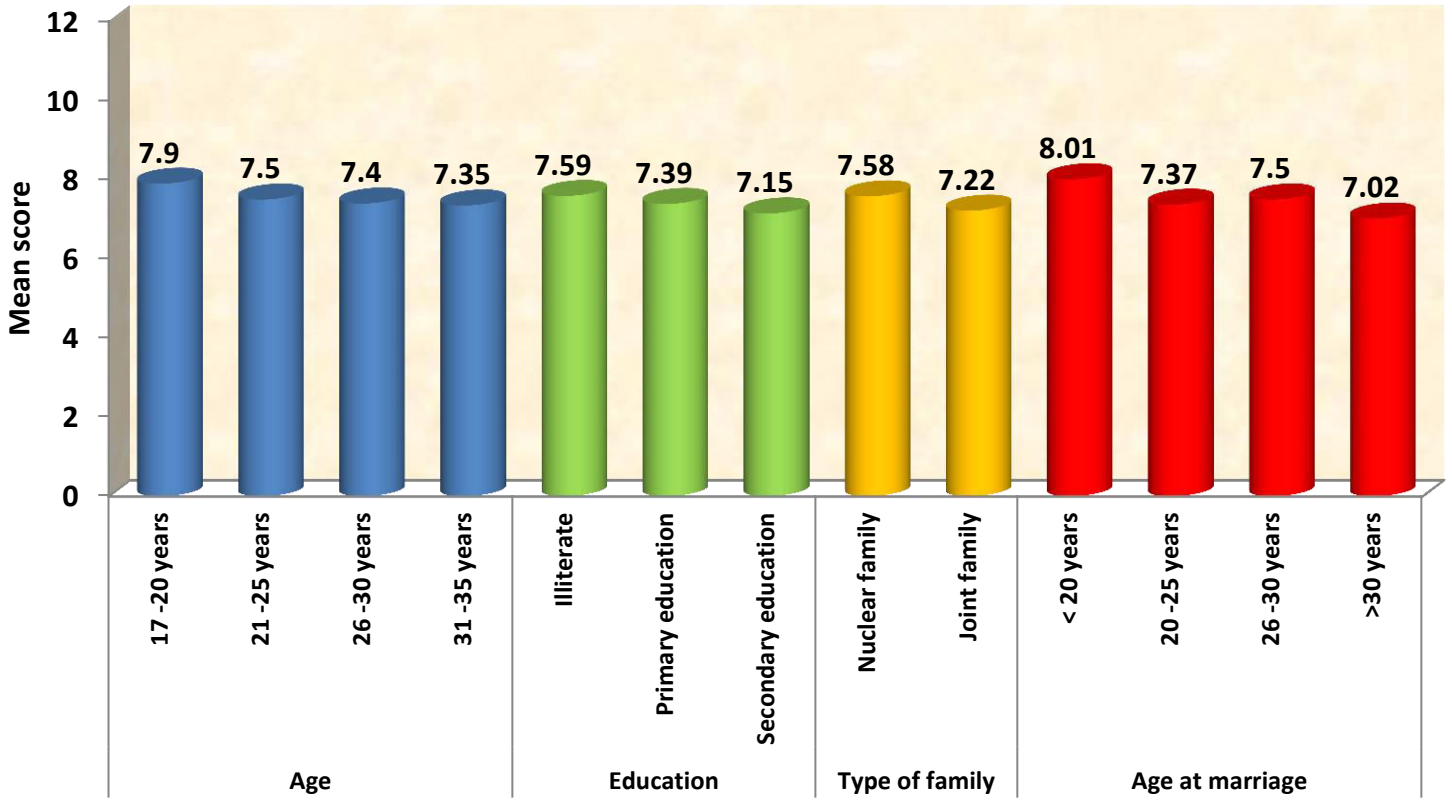
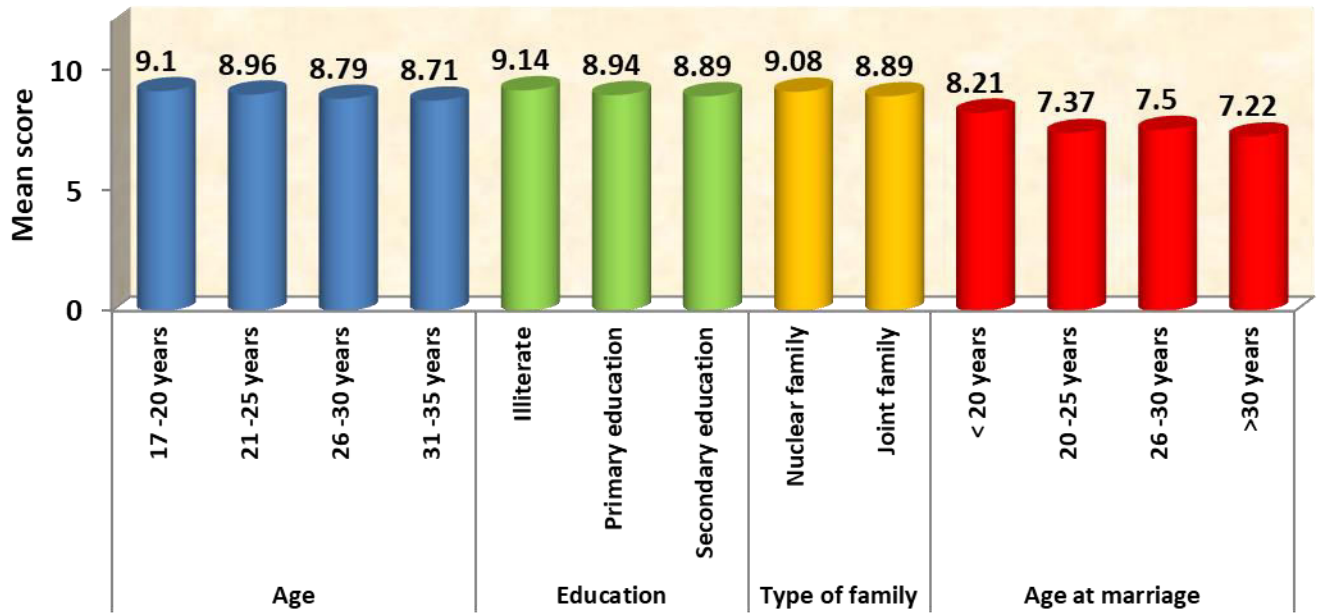


Fig. 4.21. Association between maternal psychlogical outcome score and demography variables



Association between maternal newborn bonding score and Demographic variables

Fig. 4.20. Association between maternal newborn bonding score and demography variables

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool constructed by Ms.P.Shanthi Grace, M.Sc., (Nursing) II year, College of Nursing, Madras Medical College which is to be used in her study titled, ""A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology, Egmore, Chennai." has been validated by the undersigned. The suggestion and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

Signature with seal

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College:

Place:

Date: 8/4/11

CERTIFICATE OF CONTENT VALIDITY

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Signature with seal 10/11/16

PROF. Dr. ROSALINE RACHEL, M.Sc., (N), Ph.D.,(N)
PRINCIPAL
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NOLAMBUR, CHENNAI - 600 095.

Name:

Designation:

College:

Place:

Date:

DESCRIPTION OF THE TOOL

It has two section A and B. In section A contains Part I and II.

Section A : Part I – Demographic variables of primi gravida mothers

Section A : Part I :

DEMOGRAPHIC DATA

1.Age

a)17 – 20 yrs

b)21 – 25 yrs

c)26 – 30 yrs

d)31 – 35 yrs

2.Educational status

a) Illiterate
b) Primary education
c) Secondary education
d) Graduate and above

3.Work pattern

a) Sedentary
b) Moderate
c) Heavy

4.Type of Family

a) Nuclear family
b) Joint family

5.Income

a) Rs. 1000-3000
b) Rs.3001-6000
c) Rs.6001-10000
d) Rs.10000 and above

6.Religion

a) Hindu
b) Christian
c) Muslim
d) Others

7.Area of living

a) Urban
b) Rural

8.Height of the mother

a) Below 150 cm
b) 151-160 cm
c) 161-170 cm
d) Above 170cm

9.Weight of the mother

a) 40-50kg
b) 51-60kg
c) 61-70kg
d) 70kg and above

PART II: Obstetrical data

1. Age at Menarche –
2. Age at Marriage---
3. Last menstrual period---
4. Expected date of delivery—
5. Gestational age
6. Type of marriage—

SECTION B :

1)post-partum bonding assessment questionnaire.

2)Edinburg post natal depression scale

தனி நபர் விபரம்

பகுதி – «

இந்த பகுதி வயது, கல்வி, மதம், வீட்டு இருப்பிடம், வேலை, குடும்ப வகை, குடும்பதடதின் மாத வருமானம் பற்றிய விவரங்களை கொண்டுள்ளது.

பகுதி – «

தனி நபர் விபரம்

குறிப்பு

1. வயது ஏ வருடங்களில்
    1. 17 -20 ஆண்டுகள்
    2. 21 ஏ 25 ஆண்டுகள்
    3. 26 -30 ஆண்டுகள்
    4. 31 -35 ஆண்டுகள்
2. தற்போதய கல்வி தகுதி
    1. 10 ம் வகுப்பு
    2. 12 ம் வகுப்பு
    3. பட்டதாரி
3. குடும்ப அமைப்பு வகை
    1. தனிக் குடும்பம்
    2. கூட்டு குடும்பம்
4. வேலை முறை
    1. குரைவான வேலை
    2. மிதமான வேலை
    3. அதிகமான வேலை

5. குடும்பதின் மாத வருமானம்ர (ரூபாயில்)
    1. ரூ. ≤ 5000/-
    2. ரூ. 5001 எ 10,000/-
    3. ரூ. 10,001 எ 15,000/-
    4. ரூ. ≥ 15,000/-
6. மதம்
    1. இந்து
    2. கிறித்துவம்
    3. முஸ்லிம்
    4. மற்றவை
7. வாழும் இடம்
    1. கிராமம்
    2. நகரம்
8. உயரம்
    1. 150 cm குரைவாக
    2. 151 - 160 செ.மி
    3. 161 - 170 செ.மி
    4. 170 மேல்
9. எடை
    1. 40 – 50 கி.கி
    2. 51 – 60 கி.கி
    3. 61 – 70 கி.கி
10. உணவு பழக்கம்
    1. சைவம்
    2. அசைவம்

பகுதி ஆ

மகப்பேற்றுக்கான தகவல்

1. பூப்பெய்திய வயது
2. திருமணத்தின் போது வயது
3. கடைசியாக மாதவிடாய் வந்த தேதி
4. பேருகாலத்திற்காக குறிக்கப்பட்ட தேதி
5. கற்பகால வயது
6. திருமண வகை

Postpartum bonding questionnaire

Postpartum Bonding Questionnaire (PBQ), a 25 -item self-report measure developed to assess impairment in the mother-infant relationship during the perinatal period (Brockington et al., 2001). The measure is comprised of four distinct factors. The first factor, Impaired Bonding, includes responses on 12 items and is a general factor that represents overall impairment in the mother-baby relationship. The second factor, Rejection/Pathological Anger, includes responses on seven items and reflects high maternal anger toward the infant. The third factor, Maternal Anxiety, includes responses on four items and reflects high maternal anxiety and anxious attachment. The fourth factor, Risk of Abuse, includes responses on two items and represents risk for physical abuse. The cut-off score for factor 1 is 12, for factor 2 is 17 for factor 3 is 10 and for factor 4 is 4. The lowest possible score on all scales is 0, whereas the highest possible score is 125 for the total PBQ, 60 for the impaired bonding subscale, 35 for the rejection subscale, 20 for the anxiety subscale and 10 for the abuse subscale. Higher scores indicate that the parent has negative affection towards the baby and feels a greater psychological burden with regard to parenting.

Postpartum Bonding Questionnaire

Name …… Baby's Age……. Date……

Please indicate how often the following are true for you. There are no 'right' or 'wrong' answers. Choose the answer which seems right in your recent experience:

	Always	**Very often**	**Quite often**	**Some-times**	**Rarely**	**Never**
I feel close to my baby						
I wish the old days when I had no baby would come back						
I feel distant from my baby						
I love to cuddle my baby						
I regret having this baby						
The baby doesn't seem to be mine						
My baby winds me up						
I love my baby to bits						
I feel happy when my baby smiles or laughs						
My baby irritates me						
I enjoy playing with my baby						
My baby cries too much						
I feel trapped as a mother						
I feel angry with my baby						
I resent my baby						
My baby is the most beautiful baby in the world						
I wish my baby would somehow go away						
I have done harmful things to my baby						
My baby makes me feel anxious						
I am afraid of my baby						
My baby annoys me						
I feel confident when caring for my baby						
I feel the only solution is for someone else to look after my baby						
I feel like hurting my baby						
My baby is easily comforted						

குழந்தை பேற்றில் தாய்சேய் பினையை அலசும்/கேள்விதாள்

1. என் குழந்தையிடம் நெருக்கமாக உணருகிறேன்
2. குழந்தையில்லாத அந்த நாட்கள் திரும்பி வராதோ/தா என்று ஆசைபடுகிறேன்.
3. என் குழந்தையிடம் இருந்து விலகியிருப்பது போல் உணருகிறேன்
4. என் குழந்தையை ஆரதழுவுவது எனக்கு பிடித்திருக்கிறது.
5. இந்த குழந்தையை பெற்றதாள் வருந்துகிறேன்.
6. இந்த குழந்தை என்னுடையது அல்ல போன்ற உணர்வு மேலோங்குகிறது
7. என் குழந்தை என்னை அதிகமாக தொந்தரவு செய்கிறது
8. என் குழந்தையை மிகவும் அதிகமாய் நேசிக்கிறேன்
9. என் குழ்ந்தை சிரிக்கும் போதும், அழும் போதும் மகிழ்ச்சி அடைகிறேன்
10. என் குழ்ந்தை என்னை எரிச்சல் படுத்துகிறது
11. என் குழ்ந்தையோடு விளையாடி மகிழ்கிறேன்
12. என் குழ்ந்தை அதிகமாய் அழுகிறது
13. தாய்மையை ஒரு சுமையாய் உணர்கிறேன்
14. என் குழ்ந்தை மீது கோபம் வருகிறது
15. இந்த குழந்தையை பெற்றதாள் பெருமை அடைகிறேன்
16. உலகிலேயே மிகவும் அழகான குழ்ந்தை என் குழ்ந்தை
17. என் குழ்ந்தை எப்படியாவது என்னை விட்டு போனால் போதும் என்று இருக்கிறது
18. என் குழ்ந்தைக்கு பல திங்குளைத்திருக்கிறேன்
19. என் குழ்ந்தை என் கவலைக்கு காரணமாய் இருக்கிறது
20. என் குழ்ந்தை எனக்குள் பயத்தை தோற்றுவிகிறது
21. என் குழ்ந்தை என்னை எரிச்சல் படுதுகிறது
22. என் குழ்ந்தையை பராமரிப்பதில் எனக்கு தன்னம்பிக்கை இருக்கிறது
23. வேறு ஒருவரின் உதவி தான் என் பிள்ளை வளர்பில் எனக்கு தேவைபடும்/தோன்றும் ஒரே தீர்வு
24. என் குழ்ந்தையை காயபடுத்த வேண்டும் போல தோன்றுகிரது

25. எளிதில் என் குழந்தை சமாதானமடைந்து விடுகிறது

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

The EPDS was developed for screening postpartum women in outpatient, home visiting settings,or at the 6 –8 week postpartum examination. It has been utilized among numerous populations including U.S. women and Spanish speaking women in other countries. The EPDS consists of 10 questions. The test can usually be completed in less than 5 minutes. Responses are scored 0, 1, 2, or 3 according to increased severity of the symptom. Items marked with an asterisk (*) are reverse scored (i.e., 3, 2, 1, and 0). The total score is determined by adding together the scores for each of the 10 items. Validation studies have utilized various threshold scores in determining which women were positive and in need of referral. Cut-off scores ranged from 9 to 13 points. Therefore, to err on safety's side, a woman scoring 9 or more points or indicating any suicidal ideation – that is she scores 1 or higher on question #10 – should be referred immediately for follow-up. Even if a woman scores less than 9, if the clinician feels the client is suffering from depression, an appropriate referral should be made. The EPDS is only a screening tool. It does not diagnose depression – that is done by appropriately licensed health care personnel. Users may reproduce the scale without permission providing the copyright is respected by quoting the names of the authors, title and the source of the paper in all reproduced copies.

Instructions for Users

1. The mother is asked to underline 1 of 4 possible responses that comes the closest to how she has been feeling the previous 7 days.
2. All 10 items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.2

Name:

Date:

Address:

Baby's Age:

As you have recently had a baby, we would like to know how you are feeling.

Please UNDERLINE the answer

Which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.Here is an example, already completed.

I have felt happy:

Yes, all the time

Yes, most of the time

No, not very often

No, not at all

This would mean: "I have felt happy most of the time" during the past week. Please complete the other questions in

the same way.

In the past 7 days:

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

1. I have been able to laugh and see the funny side of things
    a) As much as I always could
    b) Not quite so much now
    c) Definitely not so much now
    d) Not at all
2. I have looked forward with enjoyment to things
    a) As much as I ever did
    b) Rather less than I used to
    c) Definitely less than I used to
    d) Hardly at all
3 .I have blamed myself unnecessarily when things went wrong
    a) Yes, most of the time
    b) Yes, some of the time
    c) Not very often
    d) No, never
4. I have been anxious or worried for no good reason
    a) No, not at all
    b) Hardly ever
    c) Yes, sometimes
    d) Yes, very often
5. I have felt scared or panicky for no very good reason
    a) Yes, quite a lot
    b) Yes, sometimes
    c) No, not much
    d) No, not at all

6. Things have been getting on top of me
    a) Yes, most of the time I haven't been able to cope at all
    b) Yes, sometimes I haven't been coping as well as usual
    c) No, most of the time I have coped quite well
    d) No, have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping
    a) Yes, most of the time
    b) Yes, sometimes
    c) Not very often
    d) No, not at all
8. I have felt sad or miserable
    a) Yes, most of the time
    b) Yes, quite often
    c) Not very often
    d) No, not at all
9 I have been so unhappy that I have been crying
    a) Yes, most of the time
    b) Yes, quite often
    c) Only occasionally
    d) No, never
10. The thought of harming myself has occurred to me
    a) Yes, quite often
    b) Sometimes
    c) Hardly ever
    d) Never

ஏடின்பர்க்ஹ் பிரசவத்திற்க்கு பின் மன அழுத்தம் காணும் அளவுகோள்

1. இதில் இனிமையானதை கண்களால் காணவும் வாய் விட்டு சிரிக்கவும் என்னால் முடிகிறது
    a) பெரும்பாலான நேரங்களில்
    b) அடிக்கடி
    c) எப்பொதாவது
    d) ஒருபோதும் இல்லை
2. நான் அனுபவித்து அறியாத ஒன்றை கண்களின் எதிரிரே கண்டு மகிழ என்னால் இயலுகிறது
    a) பெரும்பாலான நேரங்களில்
    b) அடிக்கடி
    c) எப்பொதாவது
    d) ஒருபோதும் இல்லை
3. தவறுகள் நிகழும் போது என்னை நானே குறைபட்டு கொள்ளுவதை முறையற்ற ஒன்றாக கருதுகிறேன்
    a) பெரும்பாலான நேரங்களில்
    b) அடிக்கடி
    c) எப்பொதாவது
    d) ஒருபோதும் இல்லை
4. தேவையற்ற காரணத்தால் தவிப்போ - தடுமாற்றமோ எற்படவே செய்கிறது
    a) பெரும்பாலான நேரங்களில்
    b) அடிக்கடி
    c) எப்பொதாவது
    d) ஒருபோதும் இல்லை
5. தேவையற்ற பயவுணர்வு அல்லது திடுக்கிடச் செய்யும் அச்சம் என்னை பாதிக்கிறது
    a) பெரும்பாலான நேரங்களில்
    b) அடிக்கடி
    c) எப்பொதாவது

d) ஒருபோதும் இல்லை

6. உள்ளத்தின் பாரம் என்னை அழுத்துவதை உணரவே செய்கின்றேன்

a) பெரும்பாலான நேரங்களில்

b) அடிக்கடி

c) எப்பொதாவது

d) ஒருபோதும் இல்லை

7. உற்சாகம் இழந்தும் உறக்கம் பிடிக்காமலும் வாழ்கிறேன்

a) பெரும்பாலான நேரங்களில்

b) அடிக்கடி

c) எப்பொதாவது

d) ஒருபோதும் இல்லை

8. வாட்டும் கவலைக்கும் வருந்தும் கலக்கத்திற்க்கும் உள்ளாகி உள்ளேன்

a) பெரும்பாலான நேரங்களில்

b) அடிக்கடி

c) எப்பொதாவது

d) ஒருபோதும் இல்லை

9. கதறி அழும் அளவிற்கு என்னை கடும் துயர் பாதித்திருக்கின்றது

a) பெரும்பாலான நேரங்களில்

b) அடிக்கடி

c) எப்பொதாவது

d) ஒருபோதும் இல்லை

10. வாழ்வையே முடித்துக்கொள்ளும் ஆழ்துயருக்கு நான் ஆழாகிவுள்ளேன்

a) பெரும்பாலான நேரங்களில்

b) அடிக்கடி

c) எப்பொதாவது

d) ஒருபோதும் இல்லை

சுய ஒப்புதல் படிவம்

ஆய்வு தலைப்பு :

பங்கேற்பாளர் பெயர் :

ஆயுவாளர் பெயர் :

ஆய்வு நடைபெறும் இடம் :

.....என்பவராகிய நான் இந்த ஆய்வின் விவரங்களும் அதன் நோக்கங்களும் முழுமையாக அறிந்து கொண்டேன். எனது சந்தேகங்கள் அனைத்திற்கும் தகுந்த விள்க்கம் அளிக்கப்பட்டது. இந்த ஆய்வில் முழு சுதந்திரத்துடன் மற்றும் சுயநினைவுடன் பங்கு கொள்ள சம்மதிக்கிறேன்.

1. நான் இந்த ஒப்புதல் தகவல் தாள் படித்து புரிந்து கொண்டேன்
2. இச்சுய ஒப்புதல் படிவததை பற்றி எனக்கு விளக்கப்பட்டது.
3. எனக்கு விளக்கப்பட்ட விஷ்யங்களை நான் புரிந்து கொண்டேன். நான் எனது சம்மதத்ததை தெரிவிக்கிறேன்.
4. இத்த ஆய்வினை பற்றிய அனைது தகவல்களும் எனக்கு தெரிவிக்கப்பட்டது.
5. இந்த ஆய்வில் எனது உரிமை மற்றும் பங்கினை பற்றி அறிந்து கொண்டேன்.
6. இந்த ஆய்வில் ஏற்படும் பாதிப்புகள் பற்றி எனக்கு விளக்கம் அளிகக்ப்பட்டது.
7. நான் ஆய்வாளருக்கு முழு ஒத்துழைப்பு அளிப்பேன், மேலும் எனக்கு பக்கவிளைவு ஏதாவது ஏற்பட்டால் ஆய்வாளருக்கு உடனடியாக தெரிவிப்பேன்.

இந்த ஆய்வில் பிறரின் நிர்பந்தமின்றி என் சொந்த விருப்பதிதின் பேரில் தான் பங்கு பெறுகிறேன் மற்றும் நான் இந்த ஆராய்ச்சியிலிருந்து எந்த நேரமும்

பின் வாங்கலாம் என்பதயும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் நான் புரிந்து கொண்டேன்.

இந்த ஆய்வில் கலந்து கொள்வதன் முலம் என்னிடம் பெறப்படும் தகவலை ஆய்வாளர் இன்ஸ்டிட்யூசனல் எத்திக்ஸ் கமிட்டியினரிடமோ, அரசு நிறுவனத்திடமோ தேவைப்பட்டால் பகிர்ந்து கொள்ளலாம் என சம்மதிக்கிறேன்.

இந்த ஆய்வின் முடிவுடளை வெளியுடும் போது எனது பெயரோ, அடயாளமோ வெளியிடப்படாது என அறிந்து கொண்டேன். இந்த ஆய்விற்க்காக இரத்தப் பரிசோதனை செய்துக் கொள்ள சம்மதிக்கிறேன்

இந்த ஆயிவி பங்கேற்கும் பொழுது ஏதேனும் சந்தேகம் ஏற்பட்டால், உடனே ஆய்வாளரை தொடர்பு கொள்ள வேண்டும் என அரிந்து கொண்டேன்.

இச்சுய ஒப்புதல் படிவத்தில் கையெழுத்திடுவதன் மூலம் இதிலுள்ள அனைத்து விஷயங்களும் எனக்கு தெளிவாக விளக்கப்பட்டது என்று தெரிவிக்கிறேன் என்று புரிந்து கொண்டேன். இச்சுய ஒப்புதல் படிவத்தின் ஒரு நகல் எனக்கு கொடுக்கப்படும் என்று தெரிந்து கொண்டேன்.

பங்கேற்பாளர் கையொப்பம் தேதி :

ஆய்வாளர் கையொப்பம் தேதி :

ஆய்வினால் ஏற்படும் நன்மைகள்:

இந்த ஆய்வில் கலந்து கொள்வதன் முலம் நீங்கள் நோயின் தன்மையில் முன்னேற்றம் பெறலாம். மேலும் வருங்காலத்தில் பிற நோயாளிகளும் பயன்பெற இந்த ஆய்வு உதவியாக அமையும்.

மருத்துவ சிகிச்சையின் தகவல்கள் குறித்த விவரங்கள்:

உங்கள் மருத்துவ சிகிச்சை குறித்த தகவல்கள் ரகசியமாக பாதுகாக்கப்படும் (பெயர், மருதுவ பரிசோதனை முடிவு, மருத்துவ ஆய்வு முடிவு) இந்த தகவல் தாளில் கையெலுதிடுவதின் மூலம் உங்களை பற்றி குறிப்புகளோ, எடுத்து கொண்ட சிகிச்சை முறையை பற்றியோ ஆய்வாளரோ இன்ஸ்டியூசன் எத்திக்கல் கமிட்டியை சார்ந்தவர்களோ தேவைப்பட்டால் அறிந்து கொள்ளலாம் என்று சம்மதிக்கிறீர்கள். முடிவுகளை அல்லது கருத்துக்களை வெளியிடும் போதோ அல்லது ஆய்வின் அடையாங்களையோ வெளியிடமாட்டோம் என்பதையும் தெரிவித்து கொள்கிறோம்.

இந்த ஆய்வில் பங்கேற்காவிட்டாலும் நீங்கள் வழக்கமான சிகிச்சையை தொடர்ந்து பெறலாம்.

இந்த ஆய் வில் பங்கேற்பது தங்களுடைய விருப்பத்தின் பேரில் தான் இருக்கிறது மேலும் நீங்கள் எந்த நேரமும் இந்த ஆய்விலிருந்து பின் வாங்கலாம் என்பதையும் தெரிவித்துக் கொள்கிறோம்.

இந்த சிறப்பு சிகிச்சையின் முடிவுகளை ஆய்வின் போதோ அல்லது ஆய்வின் முடிவின் போதோ தங்களுக்கு அறிவிப்போம் என்பதயும் தெரிவித்துக் கொள்கிறோம்.

ஆய்வாளர் கையொப்பம் பங்கேற்பாளர் கையொப்பம்

.ஆய்வு தகவல் தாள்

ஆய்வு தலைப்பு :

ஆய்வாளர் பெயர் :

பங்கேற்பாளர் பெயர் :

ஆய்வு நடைபெறும் இடம் :

இந்த ஆய்வு இராஜீவ் காந்தி அரசு பொது மருதுவமனையில் நடைபெற உள்ளது நீங்களும் இந்த ஆய்வில் பங்கேற்க நாங்கள் விரும்புகிறோம். இதிலுள்ள தகவலின் அடிப்படையில் இந்த ஆய்வில் பங்கேற்பதா அல்லது வேண்டாமா என்று நீங்கள் முடிவு செய்து கொள்ளலாம். உங்களது சந்தேகங்களை எங்களிடம் கேட்டு நிவர்த்தி செய்து கொள்ளலாம்.

இந்த ஆய்வின் நோக்கம்:

இந்த ஆய்விற்கு இன்ஸ்டியூசனல் எத்திக்ஸ் கமிடி சம்மதம் பெற்றிருக்கிறோம்.

ஆயிவின் செயல்முறை:

ஆய்வு தகவல் தாள்

ஆய்வு தலைப்பு :

ஆய்வாளர் பெயர் :

பங்கேற்பாளர் பெயர் :

ஆய்வு நடைபெறும் இடம் :

இந்த ஆய்வு மகபேறு மருதுவமனை எலும்பூரில் நடைபெற உள்ளது நீங்களும் இந்த ஆய்வில் பங்கேற்க நாங்கள் விரும்புகிறோம். இதிலுள்ள தகவலின் அடிப்படையில் இந்த ஆய்வில் பங்கேற்பதா அல்லது வேண்டாமா என்று நீங்கள் முடிவு செய்து கொள்ளலாம். உங்களது சந்தேகங்களை எங்களிடம் கேட்டு நிவர்த்தி செய்து கொள்ளலாம்.

இந்த ஆய்வின் நோக்கம்:

இந்த ஆய்விற்கு இன்ஸ்டியூசனல் எத்திக்ஸ் கமிடி சம்மதம் பெற்றிருக்கிறோம்.

ஆயிவின் செயல்முறை:

குழந்தை பேற்றில் தாய்சேய் பினையை அலசும்/கேள்விதாள்

1. என் குழந்தையிடம் நெருக்கமாக உணருகிறேன்
2. குழந்தையில்லாத அந்த நாட்கள் திரும்பி வராதோ/தா என்று ஆசைபடுகிறேன்.
3. என் குழந்தையிடம் இருந்து விலகியிருப்பது போல் உணருகிறேன்
4. என் குழந்தையை ஆரதழுவுவது எனக்கு பிடித்திருக்கிறது.
5. இந்த குழந்தையை பெற்றதாள் வருந்துகிறேன்.
6. இந்த குழந்தை என்னுடையது அல்ல போன்ற உணர்வு மேலோங்குகிறது
7. என் குழந்தை என்னை அதிகமாக தொந்தரவு செய்கிறது
8. என் குழந்தையை மிகவும் அதிகமாய் நேசிக்கிறேன்
9. என் குழ்ந்தை சிரிக்கும் போதும், அழும் போதும் மகிழ்ச்சி அடைகிறேன்
10. என் குழ்ந்தை என்னை எரிச்சல் படுத்துகிறது
11. என் குழ்ந்தையோடு விளையாடி மகிழ்கிறேன்
12. என் குழ்ந்தை அதிகமாய் அழுகிறது
13. தாய்மையை ஒரு சுமையாய் உணர்கிறேன்
14. என் குழ்ந்தை மீது கோபம் வருகிறது
15. இந்த குழந்தையை பெற்றதாள் பெருமை அடைகிறேன்
16. உலகிலேயே மிகவும் அழகான குழ்ந்தை என் குழ்ந்தை
17. என் குழ்ந்தை எப்படியாவது என்னை விட்டு போனால் போதும் என்று இருக்கிறது
18. என் குழ்ந்தைக்கு பல திங்குளைத்திருக்கிறேன்
19. என் குழ்ந்தை என் கவலைக்கு காரணமாய் இருக்கிறது
20. என் குழ்ந்தை எனக்குள் பயத்தை தோற்றுவிகிறது
21. என் குழ்ந்தை என்னை எரிச்சல் படுதுகிறது

22. என் குழ்ந்தையை பராமரிப்பதில் எனக்கு தன்னம்பிக்கை இருக்கிறது

23. வேறு ஒருவரின் உதவி தான் என் பிள்ளை வளர்பில் எனக்கு தேவைபடும்/தோன்றும் ஒரே தீர்வு

24. என் குழ்ந்தையை காயபடுத்த வேண்டும் போல தோன்றுகிரது

25. எளிதில் என் குழந்தை சமாதானமடைந்து விடுகிறது

INFORMED CONSENT FORM

Title of the study: **"**A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and gynaecology , Egmore, Chennai – 8.

Name of the Participant:

I ----------have read the information in this form (or it has been read to me). I was free to ask questions and they have been answered. As I hereby give my consent to include me as the participant in this study.

1. I have read and understood the consent form and the information provided to me.
2. I have had the consent document explained to me.
3. I have been explained about the nature of the study
4. I have been explained about my rights and responsibilities by the investigator
5. I am aware of the fact that I can opt out of the study at any time without having to give any reason and this will not affect my further treatment in the hospital.
6. I hereby give permission to the investigator to release the information obtained on my study to other team personnel, sponsors, Institution Ethics Committee and any person or agency required by law like Health Controller General of India, IEC. I understand that they are publicly presented.
7. I understand my identity will be kept confidential when the study is publicly presented.
8. I have had my questions answered to my satisfaction
9. I have decided to participate in the study.

I am aware that if I have any questions during this study, I should contact the investigator. By signing this consent form I attest that the information given in this document about the research on me has been clearly explained to me and understood by me. I will be given a copy of this consent document.

Name and Signature /thumb impression of the participant

Name---------- Signature ---------- Date ----------

Name and Signature of the investigator or representative obtaining consent:

Name---------- Signature---------- Date----------

INFORMATION TO PARTICIPANTS

Investigator : P. Shanthi Grace

Name of Participant:

Tittle: **A study to assess the Effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers delivered at Institute of Obstetrics and Gynaecology, Egmore, Chennai – 8.**

This study is conducted in Institute of Obstetrics and Gynecology, Egmore, Chennai-8. You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have queries or concerns.

What is the Purpose of the Research (explain briefly)

This Research is conducted to assess the effectiveness of early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers

We have obtained permission from the Institutional Ethical Committee.

The Study Design

Analytical cross sectional study Design

Study Procedures

The study involves to assess the effectiveness of maternal new born bonding, and psychological outcome of the primi mothers early suckling will be initiated within 10mins after delivery.

Possible Effects to You –

No risks involved

Possible benefits to you

After finishing this study, investigator will provide information that early suckling will increasing the maternal new born bonding and psychological outcome of the primi mothers.

Possible benefits to other people

The result of the research may motivate the nurses to do early suckling in increasing the maternal new born bonding, and psychological outcome of the primi mothers.

CONFIDENTIALITY OF THE INFORMATION OBTAINED FROM YOU

You have the right to confidentiality regarding the privacy of your medical information (personal details, results of physical examination, investigation, and your medical history). By signing this document you will be allowing the research team investigators, other study personnel, sponsors, and any person or agency required by law like the Drug Controller General of India to view your data, if required. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

HOW WILLYOUR DECISION NOT TO PARTICIPATE IN THE STUDY AFFECT YOU?

Your decisions not to participate in this research study will not affect your, medical care or your relationship with investigator or the institution.

CAN YOU DECIDE TO STOP PARTICIPATION IN THE STUDY ONCE YOU START?

The participation in this research is purelyvoluntaryandyouhavetheright to withdraw from this study at any time during course of the study without giving reasons. However, it is advisable that you talk to the research team prior to stopping the treatment.

Signature of the Investigator Signature of the mother with date

Confidentiality of the information obtained from you

You have the right to confidentiality regarding the privacy of your medical information (personal details, results of physical examinations, investigations, and your medical history). By signing this document, you will be allowing the research team investigators, other study personnel, sponsors, IEC and any person or agency required by law like the Drug Controller General of India to view your data, if required. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

How will your decision not to participate in the study affect you?

Your decisions not to participate in this research study will not affect your daily living activities, medical care or you relationship with investigator or the institution.

Can you decide to stop participating in the study once you start?

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during course of the study without giving any reasons.

However, it is advisable that you talk to the research team prior to stopping the treatment.

Obstetrical Data						
Normal delivery						
S. No	**Age at Menarche**	**Age at Marriage**	**LMP**	**EDD**	**Gestational Age**	**Marriage Type**
1	12	22	25.03.16	1.1216	38, 3	C
2	14	20	15.02.16	22.11.16	39, 6	NC
3	13	36	13.02.16	20.11.16	40, 1	NC
4	13	19	13.02.16	20.11.16	40, 4	NC
5	13	20	10.02.16	17.11.16	40, 5	NC
6	13	20	18.02.16	25.11.16	39, 4	NC
7	16	21	06.03.16	13.12.16	36, 6	NC
8	15	23	12.02.16	19.11.16	40, 6	NC
9	13	18	17.02.16	24.11.16	40, 1	C
10	13	23	15.02.16	22.11.16	40, 1	C
11	14	21	18.02.16	25.11.16	40, 1	NC
12	13	24	24.02.16	03.12.16	39	NC
13	13	27	08.03.16	15.12.16	36, 2	C
14	15	19	16.02.16	23.11.16	4, 2	NC
15	12	17	25.02.16	02.12.16	39	C
16	13	27	22.03.16	29.12.16	36, 1	NC
17	12	23	21.02.16	28.11.16	40, 1	NC
18	16	27	27,02.16	06.12.16	39, 2	NC
19	14	21	29.02.16	06.12.16	38, 4	NC
20	17	27	23.02.16	30.11.16	40, 2	NC
21	13	19	09.03.16	16.12.16	38	NC
22	14	19	27.02.16	03.12.16	39, 6	NC
23	14	20	26.02.16	05.12.16	39, 5	NC
24	14	21	27.02.16	06.12.16	39,5	NC
25	13	20	25.02.16	04.12.16	39.3	NC
26	13	20	03.02.16	10.11.16	40	NC
27	14	21	04.02.16	11.12.16	40	C
28	13	22	05.02.16	12.11.16	39.4	NC
29	13	24	05.03.16	12.12.16	40	NC
30	14	24	07.03.16	14.12.16	40	C
31	14	22	02.09.16	09.08.17	38,2	C
32	13	24	08.10.16	17.07.17	39,4	NC
33	13	23	27.10.16	04.08.17	38,2	C
34	14	26	08.10.16	17.07.17	39,3	NC
35	14	24	09.10.16	16.07.17	40,2	NC
36	13	20	07.10.16	14.07.17	40	NC
37	15	19	05.10.16	12.07.17	40,2	NC
38	11	23	20.20.16	27.07.17	37,6	C
39	13	24	09.10.16	16.07.17	37,6	NC
40	14	22	09.10.16	16.07.17	40,1	C
41	14	24	10.10.16	17.07.17	40,2	NC
42	13	19	22.10.16	29.07.17	39,4	NC
43	15	25	11.10.16	18.07.17	37,5	NC
44	13	18	10.10.16	17.O7.16	40	NC
45	13	19	10.12.16	17.09.16	33	C
46	14	20	26.02.16	05.12.16	38,3	C
47	14	24	27.02.16	06.12.16	37	NC
48	14	24	16.03.16	23.12.16	37	C
49	14	22	27.02.16	07.12.16	39	NC
50	15	18	01.03.16	08.12.16	39,1	C
51	14	22	03.02.16	10.11.16	40	C
52	14	22	27.02.16	04.12.16	39	NC
53	13	22	25.03.16	01.12.16	38,3	C
54	14	24	26.02.16	05.12.16	39,3	C
55	14	19	13.03.16	20.12.16	37,3	NC
56	12	21	22.02.16	29.11.16	40,3	C
67	14	30	05.03.16	12.12.16	38,1	C
58	13	30	06.03.16	13.12.16	38,1	NC
59	14	31	03.03.16	10.12.16	38,4	NC
60	13	22	18.03.16	25.12.16	38,4	NC

Demographic Data										
NORMAL DELIVERY										
S. No	**Age**	**Qualification**	**Family Type**	**Occupation**	**Income**	**Religion**	**Place of Living**	**Height**	**Weight**	**Dietary Pattern**
1	1	2	2	2	2	1	2	3	3	2
2	2	1	1	2	1	1	2	2	1	2
3	2	2	2	1	2	1	1	2	2	2
4	3	3	2	2	3	1	1	3	3	2
5	2	1	2	2	3	2	1	3	2	2
6	3	1	2	2	2	1	1	3	2	2
7	2	1	2	2	3	1	2	1	3	2
8	3	3	2	2	4	2	2	3	2	2
9	1	1	1	2	1	1	2	1	1	2
10	1	1	1	2	2	1	2	2	3	2
11	3	3	2	2	2	1	2	2	2	2
12	2	1	2	2	2	1	2	1	3	2
13	2	3	2	2	3	1	2	1	3	2
14	2	1	1	2	2	1	2	2	3	2
15	1	2	1	2	4	1	2	3	3	2
16	2	2	1	2	2	1	2	2	2	2
17	2	3	2	2	1	2	2	3	2	2
18	1	1	1	2	1	1	2	3	2	2
19	1	1	1	2	2	1	2	2	3	2
20	1	3	1	2	1	1	1	2	3	2
21	4	1	1	2	2	1	2	1	3	2
22	3	2	2	2	2	2	2	2	2	2
23	2	3	2	2	2	1	1	2	1	2
24	3	1	1	2	2	1	2	1	1	2
25	1	2	2	2	2	1	2	3	3	2
26	2	1	1	2	1	1	2	2	1	2
27	1	2	2	2	1	3	2	2	3	2
28	2	3	2	2	3	1	1	3	2	2
29	2	3	2	2	2	2	2	2	3	2
30	3	1	1	2	2	1	2	1	1	2
31	3	3	1	2	2	1	2	2	2	2
32	2	1	1	2	2	1	2	2	2	2
33	2	3	1	2	2	1	2	2	3	2
34	2	1	2	2	2	1	2	2	3	2
35	2	1	1	2	3	1	2	2	3	2
36	2	1	2	2	3	1	2	2	2	2
37	1	1	2	2	3	1	2	1	1	2
38	3	3	2	2	3	1	2	2	3	2
39	3	2	1	2	2	1	1	1	3	2
40	1	1	1	1	1	1	1	1	1	2
41	2	2	2	2	3	1	1	2	2	2
42	2	3	1	2	2	1	2	2	3	2
43	3	1	2	2	2	2	2	1	1	2
44	2	3	2	2	3	1	2	1	3	2
45	3	1	1	2	3	1	2	1	3	2
46	4	1	2	2	1	1	1	1	2	2
47	2	1	1	2	3	1	2	1	2	2
48	3	3	1	2	2	1	2	3	2	2
49	3	3	2	2	2	1	2	2	2	2
50	3	1	2	2	1	1	2	2	3	2
51	2	1	2	2	1	1	2	2	3	2
52	4	2	1	2	1	1	2	4	2	2
53	3	2	2	2	2	2	1	1	2	2
54	2	1	2	2	1	3	1	2	21	2
55	4	2	2	2	2	2	1	1	2	2
56	2	2	2	2	1	1	2	2	2	2
57	2	2	2	2	1	2	1	2	1	2
58	2	1	2	2	2	1	2	2	2	1
59	2	2	1	12	1	3	1	2	2	2
60	2	2	2	2	1	1	2	1	1	1

Postportam Bonding Questionare 2.likert Scale																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
2	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
3	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
4	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
5	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
6	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
7	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
8	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
9	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
10	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
11	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
12	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
13	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
14	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
15	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
16	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
17	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
18	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
19	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
20	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
21	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
22	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
23	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
24	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
25	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
26	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
27	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
28	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
29	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
30	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
31	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
32	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
33	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
34	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
35	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
36	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
37	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
38	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
39	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
40	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
41	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
42	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
43	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
44	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
45	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
46	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
47	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
48	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
49	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
50	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
51	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
52	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
53	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
54	1	1	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
55	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
56	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
57	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
58	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
59	1	1	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1
60	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1

EDWINBURG POST NATAL DEPRESION SCALE										
NORMAL DELIVERY										
	1	2	3	4	5	6	7	8	9	10
1	0	1	1	0	1	1	0	1	1	1
2	1	1	1	0	1	1	0	1	1	1
3	0	1	1	0	1	1	0	1	1	1
4	0	1	1	0	1	1	0	1	1	1
5	0	1	1	0	1	1	0	1	1	1
6	0	1	1	0	1	1	0	1	1	1
7	0	1	1	0	1	2	0	1	1	1
8	0	1	1	0	2	1	0	1	1	1
9	0	1	1	0	2	1	0	1	1	1
10	0	1	1	0	1	1	0	1	1	1
11	0	1	1	0	1	1	0	1	1	1
12	0	1	1	0	0	1	0	1	1	1
13	0	1	1	0	2	1	0	1	1	1
14	0	1	1	0	2	1	0	1	1	1
15	0	1	1	0	1	1	0	1	1	1
16	0	1	1	0	1	1	0	1	1	1
17	0	1	1	0	1	1	0	1	1	1
18	0	1	1	0	1	1	0	1	1	1
19	0	1	1	0	1	1	2	1	1	1
20	0	1	1	0	2	1	0	1	1	1
21	0	1	1	0	1	1	0	1	1	1
22	0	1	1	0	1	1	0	1	1	1
23	0	1	1	0	1	1	1	1	1	1
24	0	1	1	0	1	1	0	1	2	1
25	0	1	1	0	1	1	0	1	1	1
26	0	1	1	0	1	1	0	1	1	1
27	0	1	1	0	1	1	0	1	1	2
28	0	1	1	0	2	1	0	1	1	1
29	0	1	1	0	1	1	1	1	1	1
30	0	1	1	0	1	1	0	1	1	1
31	0	1	1	0	1	1	0	1	1	1
32	0	1	1	0	1	1	0	1	1	1
33	0	1	1	0	1	1	0	1	1	1
34	0	1	1	0	1	1	0	1	1	1
35	0	1	2	0	1	1	0	1	1	1
36	0	1	1	0	1	1	0	1	2	1
37	0	1	1	0	1	1	0	1	1	1
38	0	1	1	0	1	1	0	1	1	1
39	1	1	1	0	1	1	0	1	1	1
40	1	1	1	0	1	1	0	1	1	1
41	0	1	1	0	1	1	0	1	1	1
42	0	1	1	0	1	1	0	1	1	1
43	0	1	1	0	1	1	0	1	1	1
44	0	1	1	0	1	1	0	1	1	1
45	0	1	1	0	1	1	0	1	1	1
46	0	1	1	0	2	1	0	1	1	2
47	0	1	1	0	1	1	0	1	1	1
48	0	1	1	0	1	1	0	1	1	1
49	0	1	1	0	1	1	0	1	1	1
50	0	1	1	0	1	1	0	1	1	1
51	0	1	1	0	1	1	0	1	1	1
52	0	1	1	0	1	1	0	1	1	1
53	0	1	1	0	2	1	0	1	1	1
54	0	1	1	0	1	1	0	1	1	1
55	0	1	1	0	1	1	10	1	1	1
56	0	1	1	0	1	1	0	1	1	1
57	0	1	1	0	1	1	0	1	1	1
58	0	1	1	0	1	1	0	1	1	3
59	0	1	1	0	1	1	0	1	1	1
60	1	1	1	0	1	1	0	1	1	1

NORMAL DELIVERY	
1	0
2	1
3	0
4	1
5	1
6	0
7	0
8	0
9	0
10	0
11	1
12	1
13	1
14	0
15	0
16	0
17	0
18	0
19	0
20	1
21	1
22	0
23	0
24	1
25	1
26	1
27	0
28	0
29	1
30	0
31	1
32	2
33	0
34	1
35	1
36	0
37	1
38	0
39	0
40	1
41	1
42	0
43	1
44	0

45	0
46	0
47	0
48	1
49	1
50	0
51	0
52	0
53	1
54	1
55	1
56	1
57	0
58	2
59	3
60	0